CUMULATIVE AUTHOR INDEX
Journal of Economic Entomology
Volume 95, 2002

A

Abdel-Aal, Y. A. I., 813
Agnello, A. M., 520
Agustí, M., 966
Ali, A., 699
Alma, A., 544
Alomar, O., 1123
Alvarez, L. A., 1337
Alverson, J., 256
Andersen, P. C., 1216
Anderson, J. B., 981
Appel, A. G., 1222
Argentine, J. A., 1185
Armes, N., 134
Arthur, F. H., 640, 1314
Arthurs, S., 668
Atanassov, A., 803
Azoma, K., 1079

B

Backus, E. A., 437
Bahl, J. R., 183
Bailey, T. B., 570
Ballmer, G. R., 1179
Bansal, R. P., 183
Barry, J. D., 936
Bas, B., 856
Bates, S. L., 770
Baumgärtner, J., 499
Baute, T. S., 57
Baxendale, F. P., 1054
Behle, R. W., 81
Bell, R. L., 797
Bengston, M., 862
Bentley, W. J., 706
Berberet, R. C., 552
Berg, R. K., 155
Bernal, J. S., 469
Bi, J. L., 1179
Biggs, R. W., 1018
Binning, R. R., 622
Blodgett, S. L., 748
Bocchetti, C., 797
Boll, R., 493
Borden, J. H., 770
Bosco, D., 544
Bounfour, M., 1142
Bowman, K. D., 1059
Braman, S. K., 478, 487, 789
Brandl, D. G., 190
Breisch, N. L., 1
Brewer, M. J., 748
Brister, C., 360
Broce, A. B., 1333
Brodbeck, B. V., 1216
Broughton, S., 507
Brown, M. D., 294
Brownbridge, M., 675
Bruzzone, O. A., 1151
Buckley, P. M., 1049
Bueno, J. M., 1066
Burd, J. D., 463
Buschman, L. L., 399, 614, 1033
Butron, A., 458, 1044
Byrne, F. J., 425

C

Cadogan, B. L., 578
Calvin, D., 878
Campbell, J. F., 1089, 1333
Cane, J. H., 22
Caprio, M. A., 1251
Cardona, C., 1066
Carlson, D. A., 1110
Carlson, G. A., 1008
Carrière, Y., 143, 1018
Carruthers, R., 1319
Carter, J., 294
Catangui, M. A., 155
Causey, D., 1119
Chandler, L. D., 1261
Chapman, P., 1245
Chaudhury, M. F., 1337
Chavant, L., 603
Chen, H., 65
Chen, W., 360
Chen, X., 563
Chen, Z., 587
Choo, H. Y., 72, 918
Choo, Y. M., 72
Chu, C. C., 682, 733
Church, G. E., 763
Clancy, K. M., 587
Clemens, N. S., 1205
Coats, J. R., 377
Cohen, A. C., 256
Coler, R. R., 527
Colletti, J. P., 313
Collins, H. L., 14, 430
Collins, P. J., 862
Connick, W. J., Jr., 121
Cook, D. R., 763
Cornelius, M. L., 121
Costa, H. S., 113
Cottrell, T. E., 782
Coudron, T. A., 1159
Croft, B. A., 340, 1135
Cronholm, G. B., 1033
Cuyler, N., 856

D

Daane, K. M., 706
Daglish, G. J., 862
Daigle, D. J., 121
Dang, P., 797
Daterman, G. E., 778
Davis, L. K., 563
Dean, R. E., 381
de Assis Marques, F., 692
Deaton, R., 826
Degbey, P., 1079
De la Rosa, W., 36
Delgarde, S., 531
De Lima, C. P. F., 507
Dennehy, T. J., 143, 414, 1018
Denning, S. S., 1113
Díaz, F. J., 331
Díaz, J., 1066
Dillwith, J. W., 552
Dolder, S., 1102
Domek, J., 243, 261
Dorn, S., 1066
Dowd, P. F., 81, 628
Dowdy, A. K., 1089
Dowell, R. V., 936
Duncan, R. R., 478, 487
Dunst, R., 354
Duthie, J., 595

E

Edelson, J. V., 595
Ellersieck, M. R., 437
Elliott, N. C., 89
Ellis, J., 1119
Ellis, J. D., Jr., 902
Ellsworth, P. C., 682
Elzen, P. J., 902, 1119
Engelke, M. C., 478, 487
English-Loeb, G., 354
Epsky, N. D., 1326
Esker, P. D., 739
Esquivel, J. F., 1174
Estabrooks, E. N., 958

F

Fackler, P. L., 1008
Fang, L., 640, 1102
Fang, Y., 313
Farkas, R., 527
Farrar, R. R., Jr., 243
Felland, C. M., 65
Ferkovich, S. M., 927
Ferro, C., 149
Floate, K. D., 908
Folgarait, P. J., 1151

Follett, P. A., 336, 1169
Forcioli, D., 838
Forschler, B. T., 381
Foster, J. E., 1054
Fournier, D., 603
Frecon, J. L., 368
Frei, A., 1066
Frey, B., 838
Frey, J. E., 838
Frouz, J., 699
Fuentes-Granados, R., 89
Funderburk, J., 1216

G

Gao, S., 832
García-Marí, F., 167, 966
Garrido, A., 250
Gatti, S. S., 813
Gaudet, S., 1308
Gaul, S. O., 958
Gaydon, D. M., 1251
Gels, J. A., 722
Gerson, E. A., 608
Gibson, K. E., 778
Gilbert, L. E., 1151
Giles, K. L., 89, 552
Gill, R. F., 1169
Glenn, T., 28
Glitho, A. I., 174
Godin, J., 1308
Goka, K., 1267
González, E. A., 214
Gore, J., 763
Goulson, D., 537
Granda, C., 966
Gray, M., 878
Greene, A., 1
Greenplate, J. T., 826
Gries, G., 106
Gu, H., 1066
Gudleifsson, B. E., 307
Guerrero, F. D., 1001
Guillén, M., 706
Guo, Y., 826, 832
Guse, C. A., 1033
Gustafson, D. L., 651
Gusukuma-Minuto, L., 430

H

Haack, R. A., 1195
Haarmann, T., 28
Hall, D. G., 856
Hallas, T. E., 307
Halliday, W. R., 1185
Hallman, G. J., 893
Hamilton, G., 803
Hanna, W. W., 478, 487
Hansen, J. D., 208
Hansen, L. S., 50
Harris, T., 520
Hart, E. R., 313
Heinz, K. M., 668
Held, D. W., 722
Hellmich, R. L., 878
Henderson, G., 813
Hendrix, D. L., 299
Heng-Moss, T. M., 1054
Henneberry, T. J., 299, 682, 733
Hepburn, H. R., 1119
Hepburn, R., 902
Herbert, D. A., Jr., 945
Herman, R. A., 635
Hernández, A. R., 214
Hernandez, R., 1001
Higgins, R. A., 614, 878, 1033
Hignight, K., 487
Higo, H. A., 221
Hinarejos, R., 250
Hoff, K. M., 748
Hoffmann, A. A., 912
Hogsette, J. A., 527, 1110
Holshouser, D. L., 945
Holst, N., 1079
Hooper-Bùi, L. M., 1222
Howse, P. E., 537
Huang, F., 614
Huang, J., 849
Hughes, W. O. H., 537
Huignard, J., 174

I

Ibrahim, S. A., 813
Isaacs, R., 1190
Ivie, L. L., 651
Ivie, M. A., 651

J

Jacas, J.-A., 250
Jackai, L., 1281
Jackson, D. M., 1294
James, D. G., 729
Jansson, R. K., 414, 1185
Javaid, I., 243
Jenkins, T. M., 381
Jensen, K.-M. V., 50
Jiang, X.-Y., 407
Johnson, A. W., 1294
Johnson, D. T., 331
Johnson, D. W., 437
Johnson, J. A., 190
Jones, L. M., 377
Jost, D. J., 278, 286
Joyce, J. A., 598

K

Kain, D. P., 520
Katsar, C. S., 448
Kay, B. H., 294
Kaya, H. K., 72, 918
Kelsey, R. G., 608
Kermode, A. R., 770
Ketoh, G. K., 174
Khanuja, S. P. S., 183
Kherde, M., 134
Kim, Y., 1159
Kindler, S. D., 89
Knapp, J. J., 537
Knowles, K. R., 578
Kolb, T. E., 587
Kono, T., 129
Kono, Y., 871
Konstantopoulou, M. A., 1289
Koona, P., 1281
Korie, S., 1079
Kozaki, T., 129
Kranthi, K. R., 134
Krause, R. E., 578
Krokos, F. D., 1289
Kumar, S., 183

L

Lagrimini, L. M., 81
Lait, C. G., 770
Lambkin, T. M., 862
Lan, C. C., 106
Landis, D. A., 1190
Lapchin, L., 493
Lapointe, S. L., 1059
Latimer, J. G., 789
Lavhe, N., 134
Lax, A. R., 989
Learmount, J., 1245
Lee, D. W., 72, 918
Lee, J.-H., 952
Lee, S. M., 72, 918
Legaspi, B. C., Jr., 469
Legaspi, J. C., 469
Leonard, B. R., 763
Leonard, D., 1205
Li, H., 614
Li, Y.-X., 14, 430
Liang, G., 317
Liang, G.-M., 360
Liebhold, A. M., 1205
Liedo, P., 36
Lingren, P. D., 1174
Liu, H., 675
Liu, T.-X., 317, 360, 407
Liu, Y.-B., 143, 1018
Livingston, M. J., 1008
Llácer, E., 250
Loaharanu, P., 893
Lobinske, R. J., 699
Lopez, F. L., 36
Lowery, D. T., 820
Lucas, E., 1123
Luh, H.-K., 340
Lv, N., 826

M

Macnicoll, A., 1245
Malakar-Kuenen, R., 706
Malone, S., 945
Maltais, P., 1308
Malvar, R. A., 1044
Mangan, R., 1319

Mankin, R. W., 981
Margolies, D. C., 399
Markham, R. H., 1079, 1281
Mau, R. F. L., 430
Mazomenos, B. E., 1289
McAuslane, H. J., 849
McCaslin, M., 437
McElfresh, J. S., 692, 706
McLeod, P., 331
McPheron, B. A., 65
McRae, K. B., 958
Meade, T., 635
Meier, A., 1113
Meikle, W. G., 1079
Meinke, L. J., 1261
Meyer, S. K., 143
Mihaliak, C. A., 635
Millar, J., 692
Millar, J. G., 706
Miller, G. T., 513
Miller, P. R., 1130
Milliken, G. A., 96
Minson, E. S., 520
Mirkov, T. E., 469
Miyo, T., 871, 1229
Moreira, J. A., 706
Morjan, W. E., 1275
Morrill, W. L., 1130
Morse, J. G., 936
Moulton, J. K., 414
Mowery, S. V., 1333
Mullen, M. A., 1089, 1333
Munje, S., 134
Munstermann, L. E., 149
Muza, A. J., 1027

N

Nagarkatti, S., 1027
Nansen, C., 1079
Naranjo, S. E., 682
Narva, K. E., 635
Natwick, E. T., 733
Nejame, A. S., 1110
Nemetz, L. T., 377
Neumann, P., 902, 1119
Nigg, H. N., 856
Nowatzki, T. M., 570
Nuessly, G. S., 849
Nutter, F. W., Jr., 739

O

Obrycki, J., 739
Ogol, C. K. P. O., 499
Oguma, Y., 871, 1229
Ohlenschläeger, F., 167
Oi, D. H., 558
Oi, F. M., 981
Olafsson, S., 307
Olson, S. M., 1216
O'Neal, M. E., 1190
Onstad, D. W., 1033
Ordás, A., 1044
Ordás, B., 1044
Osakabe, M. H., 1267
Osbrink, W. L., 981
Osbrink, W. L. A., 989
Osisanya, E. O., 1281
Ostlie, K. R., 878

P

Paquereau, L., 603
Parajulee, M. N., 299
Parimi, S., 1261
Park, C. G., 918
Park, J. W., 72
Park, Y.-L., 952
Parker, A., 121
Parker, B. L., 675
Paterson, A. H., 448
Patrock, R. J. W., 1151
Pavic, H., 862
Peairs, F. B., 1033
Pedigo, L. P., 313, 1275
Pepper, D. A., 414
Perdikis, D. C., 44
Peterson, C. J., 377
Peterson, G. C., 448
Petrice, T. R., 1195
Phillips, T. W., 200
Pilcher, C. D., 878
Pino, J. M., 214
Pitre, H. N., 278, 286
Poland, T. M., 1195
Polk, D., 803
Pollock, D. A., 651
Poore, M. H., 1113
Porter, P., 1033
Potter, D. A., 722
Prajapati, V., 183
Pratt, P. D., 1135
Price, T. S., 729
Prischmann, D. A., 340
Pruett, J. H., 1001, 1239
Purdie, D. M., 294
Puterka, G. J., 797

R

Ramos, L. E., 856
Ramos-Elorduy, J., 214
Rasolomandimby, J., 651
Rector, B. G., 1303
Rehman, S. U., 856
Reilly, C. C., 782
Rhainds, M., 106, 354
Rice, M. E., 622, 878
Rice, N. D., 221
Riggio, M. R., 715
Riordan, T. P., 1054
Robb, K. L., 113
Roberts, R., 715
Roberts, W., 595
Rogers, D. J., 563
Rosetta, R., 1135
Ross, D. W., 778
Rouland-Lefevre, C., 531
Royer, T. A., 89
Rummel, D. R., 299
Runyon, J. B., 1130
Rush, D., 487
Russell, D., 134
Rust, M. K., 1222

S

Sadof, C. S., 348
Santamaría, E., 149
Sauer, J. A., 1074
Saunders, M. C., 1027
Schaafsma, A. W., 57
Scharbach, R. D., 578
Scharf, M. E., 1261
Scherer, P. N., 635
Schuster, D. J., 372
Sclar, D. C., 348
Scorza, R., 797
Sears, M. K., 57
Sétamou, M., 469
Shapiro, J. P., 927
Shapiro, M., 237, 243, 261
Sharov, A. A., 1205
Shearer, P. W., 368, 803
Shelton, A. M., 14, 430
Shelton, M. D., 1074
Sheppard, D. C., 598, 1251
Shi, G., 563
Shin, H. K., 918
Shockley, F. W., 437
Shono, T., 129
Shortman, S. L., 478
Showler, A. T., 754
Shufran, R. A., 96
Shuman, D., 1326
Siegfried, B. D., 1261
Sileshi, G., 499
Simpson, S. E., 856
Sims, M. A., 143, 1018
Sisterson, M. S., 1018
Sithanantham, S., 499
Skinner, M., 675
Slansky, F., 849
Sloderbeck, P. E., 1033
Slosser, J. E., 299
Smirle, M. J., 820
Smitley, D. R., 72, 918
Snook, M. E., 458, 1303
Soengas, P., 1044
Song, D., 563
Soto, A., 167
Spangler, S. M., 520
Sparks, A. N., Jr., 360
Sparks, B. L., 789
Spivak, M., 28
Spooner, R. W., 908
Stapleton, J. J., 325
Starner, V. R., 1185
Stavisky, J., 1216
Steffey, K. L., 878

Stephenson, M. G., 1294
Stewart, C. D., 789
Stockhoff, B. A., 635
Stout, M. J., 715
Stringham, S. M., 1113
Su, N.-Y., 975
Subramanyam, B., 640, 1102
Summers, C. G., 325
Sveinsson, T., 307
Swearingen, W. D., 651
Szumlas, D. E., 390

T
Tabashnik, B. E., 143, 1018
Taft, T., 354
Tamez-Guerra, P., 81
Tamo, M., 1281
Tang, J. D., 1251
Tang, Y. Q., 661
Tanigoshi, L. K., 1142
Tao, F., 89
Taylor, D., 129
Tebbets, J. S., 190
Tedeschi, R., 544
Teetes, G. L., 448
Thomas, D., 294
Thompson, G. D., 430
Thomson, L. J., 912
Thorn, R. S., 227
Tobin, P. C., 1027
Toews, M. D., 200
Tollefson, J. J., 570
Tomberlin, J. K., 598
Tomic-Carruthers, N., 1319
Tomita, T., 129
Toscano, N. C., 425, 1179
Triguéros, V., 603
Tripathi, A. K., 183

U
Uesugi, R., 1267
Urbaneja, A., 250

V
Vail, P. V., 190
Valero, K. A., 190
Velazquez, L. L., 1337
Verma, N., 183
Vilela, E. F., 537

W
Wade, G. L., 789
Wang, K.-Y., 407
Wang, M., 603
Wang, Q., 563
Wanjari, R., 134
Washburn, S. P., 1113
Watson, D. W., 1113
Weathersbee, A. A., III, 661
Weaver, B., 28
Weaver, D., 28
Weaver, D. K., 1130
Weick, J., 227
Weigle, T., 354
Westervelt, D., 1119
White, D. G., 628
Whittington, R., 221
Whitworth, R. J., 96
Widstrom, N. W., 458, 1303
Wilde, G. E., 96
Wilen, C. A., 113
Williams, D. F., 558
Williams, W. P., 1049
Williams-Woodward, J. L., 789
Windham, G. L., 1049
Winston, M. L., 221
Wiseman, B. R., 458
Witkowski, J., 878
Wittmeyer, J., 1159
Wood, B. W., 782
Woodsworth, A. T., 635
Wright, R. J., 1261
Wu, K., 826, 832
Wunch, K., 121

Y
Yang, X., 399
Yi, M.-Q., 407
Yokoyama, V. Y., 513
Youn, Y. N., 269
Young, D. L., 635
Yu, C.-H., 407

Z
Zaragoza, S., 966
Zarrabi, A. A., 552
Zettler, J. L., 1169
Zhao, J.-Z., 14, 430
Zhen, M. L., 106
Zhou, X., 1261
Zhu, K. Y., 399
Zou, L., 715
Zurowski, C. L., 820

CUMULATIVE SUBJECT INDEX
Journal of Economic Entomology
Volume 95, 2002

A

Acalolepta cervina,
  Bacchisa pallidiventris, 106
  Coffea arabica, 106
  Xylotrechus quadripes, 106
Acarapis woodi,
  botanical oil, 221
  honey bee, 221
  thymol, 221
  Varroa destructor, 221
acaricide,
  allozyme, 1267
  cross-resistance, 1267
  linkage, 1267
  Tetranychus urticae, 1267
acaricide resistance,
  acetylcholinesterase, 1239
  AChE inhibition, 1239
acetylcholinesterase, 129, 407, 425, 813, 1239
  acaricide resistance, 1239
  AChE inhibition, 1239
  Aphis gossypii, 407
  carboxylesterase, 407
  cDNA, 129
  chlorpyrifos, 425, 813
  chlorpyrifos-oxon, 813
  Coptotermes formosanus, 813
  detoxication, 407
  eserine, 813
  host plant, 407
  house fly, 129
  insecticide resistance, 129, 407, 425
  linkage analysis, 129
  meta-chloroperoxybenzoic acid, 425
  profenofos, 425
  resistance, 813
  sulprofos, 425
AChE inhibition,
  acaricide resistance, 1239
  acetylcholinesterase, 1239
acoustics,
  Coptotermes formosanus, 981
  Reticulitermes flavipes, 981
  Reticulitermes virginicus, 981
Acrobasis vaccinii,
  head capsule widths, 1308
  instars, 1308
  Vaccinium macrocarpon, 1308
action thresholds,
  Bemisia argentifolii, 682
  Bemisia tabaci, 682
  conservation biological control, 682
  pest management, 682
  predators, 682
Acyrthosiphon kondoi,
  Coccinellidae, 552
  host plant resistance, 552
  tritrophic interactions, 552
aesthetic injury level,
  canna lily, 348
  chrysanthemum, 348
  Frankliniella occidentalis, 348
  Popillia japonica, 348
Aethina tumida,
  Apis mellifera, 902
  facultative parasite, 902
  pupation success, 902
  reproductive success, 902
  sex ratio, 902
aflatoxin, 628, 1049
  Aspergillus, 628
  corn, 628, 1049
  Helicoverpa zea, 628
  plant resistance, 628, 1049
  southwestern corn borer, 1049
age,
  Anastrepha ludens, 1319
  deoxysepiapterin, 1319
  fluorescence, 1319
  sepiapterin, 1319
alarm pheromone,
  bait enhancement, 537
  leaf-cutting ants, 537
Aleyrodidae,
  citrus, 167
  distribution, 167
  sampling, 167
  whiteflies, 167
alfalfa weevil,
  Hypera postica, 748
  integrated pest management, 748
  monitoring, 748
alkaloids,
  host plant resistance, 608
  leader mortality, 608
  Picea sitchensis, 608
  Pissodes strobi, 608
allozyme,
  acaricide, 1267
  cross-resistance, 1267
  linkage, 1267
  Tetranychus urticae, 1267
alternative protein sources,
  broiler feed, 214
  Tenebrio molitor, 214
American foulbrood,
  honey bee, 1119
  small hive beetle, 1119
  tylosin, 1119
Amitermes evuncifer,
  elimination, 531
  Odontotermes smeathmani, 531
  thiamethoxam, 531
  Trinervitermes trinervius, 531
  tropical crops pest, 531
Amyelois transitella,
  Cadra figulilella, 190
  cold storage, 190
  controlled atmospheres, 190
  granulosis virus, 190
  Plodia interpunctella, 190
anabasine,
  anatabine, 1294
  Nicotiana, 1294
  nicotine, 1294
  nornicotine, 1294
  tobacco budworm, 1294
Anagrapha falcifera nucleopolyhedrovirus,
  Helicoverpa zea, 81
  peroxidase, 81
  transgenic plants, 81
Anastrepha ludens, 36, 1319
  age, 1319
  Beauveria bassiana, 36
  bioassays, 36
  deoxysepiapterin, 1319
  entomopathogen, 36
  fluorescence, 1319
  fruit flies, 36
  sepiapterin, 1319
  virulence, 36
anatabine,
  anabasine, 1294
  Nicotiana, 1294
  nicotine, 1294
  nornicotine, 1294
  tobacco budworm, 1294
ant preference,
  bait, 1222
  head width, 1222
  particle size, 1222
  pest ants, 1222
Anthonomus grandis grandis,
  boll weevil, 754
  cotton, 754
  kaolin, 754

particle film, 754
antibiotic pith,
Sesamia nonagrioides, 1044
stem resistance, 1044
Zea mays, 1044
antibody,
Coreidae, 770
Leptoglossus occidentalis, 770
Pinus contorta variety *latifolia*, 770
radiography, 770
seed orchard, 770
antifeedant,
Curcuma, 183
leaf oil, 183
oviposition-deterrent, 183
Rhyzopertha, 183
Sitophilus, 183
antifungal,
artificial diet, 256
Lygus hesperus, 256
mass rearing, 256
plant bugs, 256
aphid monitoring,
greenhouses, 493
Macrosiphum euphorbiae, 493
projection pursuit regression, 493
sampling, 493
visual methods, 493
Aphididae, 368, 782
Brachycaudus persicae, 368
Homoptera, 782
imidacloprid, 368
kaolin, 782
Melanocallis caryaefoliae, 782
particle film, 782
peach, 368
pecan, 782
Prunus persicae, 368
aphids,
greenhouse plastic, 113
pest management, 113
thrips, 113
Trialeurodes vaporariorum, 113
ultraviolet light, 113
Aphis gossypii,
acetylcholinesterase, 407
carboxylesterase, 407
detoxication, 407
honeydew, 299
host plant, 407
insecticide resistance, 407
melezitose, 299
sticky cotton, 299
thermodetector, 299
threshold, 299
Apis,
lucerne, 22
Megachile, 22
Nomia, 22
Osmia, 22
pollination efficiency, 22
Apis mellifera, 28, 227, 902
Aethina tumida, 902
coumaphos, 28, 227
diazinon, 227
facultative parasite, 902
fluvalinate, 28
honey bee, 28, 227
odor learning, 227
organophosphates, 227
pupation success, 902
reproductive success, 902
sex ratio, 902
Varroa destructor, 28
varroa mite, 28
apple maggot,
carbon dioxide atmospheres, 520
export, 520
Rhagoletis pomonella, 520
storage, 520
apple proliferation,
Cacopsylla melanoneura, 544
phytoplasma vector, 544
population dynamics, 544
Argentina,
biological control, 1151
host ant acceptability, 1151
Pseudacteon, 1151
Solenopsis, 1151
artificial diet,
antifungal, 256
Lygus hesperus, 256
mass rearing, 256
plant bugs, 256
Aspergillus,
aflatoxin, 628
corn, 628
Helicoverpa zea, 628
plant resistance, 628
automated monitoring,
grain probe trap, 1326
Oryzaephilus surinamensis, 1326
Sitophilus oryzae, 1326
Tribolium castaneum, 1326
avaunt,
cole crops, 360
reduced-risk insecticide, 360
Trichoplusia ni, 360
Avermectin,
diet bioassay, 1185
foliage bioassay, 1185
pesticide, 1185
photodegradate, 1185
Plutella xylostella, 1185
azadirachtin,
citrus, 661
Diaprepes abbreviatus, 661
neem extract, 661
Neemix, 661
root weevil, 661

B

Bacchisa pallidiventris,
Acalolepta cervina, 106
Coffea arabica, 106
Xylotrechus quadripes, 106
Bacillus thuringiensis, 14, 57, 143, 614, 635, 1018, 1205
binary crystal protein, 635
Bt corn, 57
Cry34Ab1, 635
Cry35Ab1, 635
disparlure, 1205
economic impact, 57
eradication, 1205
European corn borer, 57, 614
field corn, 57
gypsy moth, 1205
host plant resistance, 614
host preference, 143
mating disruption, 1205
neonate, 143
Ostrinia nubilalis, 57
oviposition, 143
Pectinophora gossypiella, 143, 1018
pest resistance, 614
pheromone traps, 1205
Plutella xylostella, 14
resistance, 14, 1018
resistance management, 143
rootworm, 635
second-generation screen, 14
transgenic, 14
transgenic plant, 614
transgenic plants, 1018
Bacillus thuringiensis corn,
bivoltine ecotype, 155
European corn borer, 155
permethrin, 155
South Dakota, 155
yield, 155
Bacillus thuringiensis cotton,
behavior, 763
bollworm, 763
Helicoverpa zea, 763
transgenic, 763
bait,
ant preference, 1222
control strategies, 1245
head width, 1222
insecticides, 1245
Musca domestica, 1245
particle size, 1222
pest ants, 1222
resistance, 1245
bait enhancement,
alarm pheromone, 537
leaf-cutting ants, 537
beans,
host plant resistance, 1066
melon thrips, 1066
Phaseolus vulgaris, 1066

Thrips palmi, 1066
Beauveria bassiana, 36, 651, 675
Anastrepha ludens, 36
beetles, 651
bioassays, 36
biological control, 675
entomopathogen, 36
entomopathogenic fungi, 651, 675
fruit flies, 36
Locusta migratoria capito, 651
locusts, 651
Lygus lineolaris, 675
Metarhizium anisopliae, 675
Metarhizium flavoviride, 651
pathogenicity, 675
virulence, 36
beet armyworm,
ecdysone agonist, 414
insect growth regulator, 414
insect resistance to insecticides, 414
beetles,
Beauveria bassiana, 651
entomopathogenic fungi, 651
Locusta migratoria capito, 651
locusts, 651
Metarhizium flavoviride, 651
behavior, 763, 1333
Bacillus thuringiensis cotton, 763
bollworm, 763
food odors, 1333
Helicoverpa zea, 763
oviposition, 1333
packaging, 1333
transgenic, 763
Bemisia argentifolii, 317, 682, 733
action thresholds, 682
Bemisia tabaci, 682
Bemisia tabaci biotype B, 733
conservation biological control, 682
cotton, 733
fruiting vegetables, 317
horticultural oil, 317
host plant resistance, 733
kaolin particle film, 317
normal-leaf, 733
okra-leaf, 733
pest management, 682
predators, 682
repellency, 317
whitefly, 317
Bemisia tabaci,
action thresholds, 682
Bemisia argentifolii, 682
conservation biological control, 682
pest management, 682
predators, 682
Bemisia tabaci biotype B,
Bemisia argentifolii, 733
cotton, 733
host plant resistance, 733
normal-leaf, 733
okra-leaf, 733
beneficial arthropods,
integrated pest management, 789
key plant, 789
landscape, 789
pesticide use, 789
spiders, 789
beneficial insect,
cost efficiency, 1159
fecundity, 1159
intrinsic rate of increase, 1159
predator, 1159
benzoylhydrazines,
Choristoneura rosaceana, 820
indoxacarb, 820
insecticides, 820
resistance, 820
Tortricidae, 820
bermudagrass,
centipedegrass, 478
host plant resistance, 478
seashore paspalum, 478
turfgrass, 478
twolined spittlebug, 478
biennial production,
blueberry, 958
fruit fly, 958
integrated pest management, 958
Rhagoletis mendax, 958
binary crystal protein,
Bacillus thuringiensis, 635
Cry34Ab1, 635
Cry35Ab1, 635
rootworm, 635
bioassay,
Anastrepha ludens, 36
Beauveria bassiana, 36
chlorfenapyr, 331
entomopathogen, 36
Epitrix fuscula, 331
fruit flies, 36
spinosad, 331
thiamethoxam, 331
virulence, 36
biochemical marker,
Diabrotica virgifera virgifera, 1261
esterase, 1261
insecticide resistance, 1261
bioengineered soybeans,
Glycine max, 1275
herbicide, 1275
host suitability, 1275
Plathypena scabra, 1275
RoundUp Ready Soybeans, 1275
biological control, 340, 527, 558, 675, 908, 918, 1079, 1123, 1151
Argentina, 1151
Beauveria bassiana, 675
calf manure, 527
cow manure, 527
Dicyphus tamaninii, 1123
disease, 558
entomopathogen, 558
entomopathogenic fungi, 675
Exomala orientalis, 918
fire ant, 558
Heterorhabditis, 918
host ant acceptability, 1151
house fly, 527
Hydrotaea aenescens, 527
integrated pest management, 1079
intraguild predation, 1123
laboratory bioassays, 908
Lygus lineolaris, 675
Macrolophus caliginosus, 1123
Metarhizium anisopliae, 675
mirid, 1123
Muscidifurax, 908
pathogen, 558
pathogenicity, 675
Phytoseiidae, 340
Prostephanus truncatus, 1079
Pseudacteon, 1151
scarab beetles, 918
Sitophilus zeamais, 1079
Solenopsis, 1151
Solenopsis invicta, 558
Steinernema, 918
stored products, 1079
Teretrius nigrescens, 1079
Tetranychus urticae, 340
Trichomalopsis, 908
Typhlodromus pyri, 340
Urolepis, 908
vineyard, 340
white grub, 918
zoophytophagy, 1123
biomass allocation,
Choristoneura occidentalis, 587
herbivory, 587
Pseudotsuga menziesii, 587
shoot:root ratio, 587
biotechnology,
Bt corn, 878
European corn borer, 878
maize, 878
survey, 878
transgenic corn, 878
biotype, 448, 463
Diuraphis noxia, 463
molecular genetics, 448
phloem translocation, 463

plant resistance, 448
restriction fragment-length polymorphism, 448
Schizaphis graminum, 448, 463
Sorghum bicolor, 448
Triticum aestivum, 463
vein loading, 463
bivoltine ecotype,
Bacillus thuringiensis corn, 155
European corn borer, 155
permethrin, 155
South Dakota, 155
yield, 155
bivoltinism,
phenology, 65
Rhagoletis pomonella, 65
trapping, 65
Blattella germanica,
catnip, 377
nepetalactone, 377
repellency, 377
Blissus occiduus,
Buchloë dactyloides, 1054
buffalograss, 1054
chinch bug, 1054
plant resistance, 1054
turf, 1054
blueberry,
biennial production, 958
fruit fly, 958
integrated pest management, 958
Rhagoletis mendax, 958
body weight,
Cerambycidae, 563
fecundity, 563
larval development, 563
Oemona hirta, 563
rearing, 563
boll weevil,
Anthonomus grandis grandis, 754
cotton, 754
kaolin, 754
particle film, 754
bollworm,
Bacillus thuringiensis cotton, 763
behavior, 763
Helicoverpa zea, 763
transgenic, 763
Bombus impatiens,
bumble bee, 722
cyfluthrin, 722
ecotoxicology, 722
imidacloprid, 722
turfgrass, 722
boric acid,
granular baits, 1110
house fly, 1110
Musca domestica, 1110
repellency, 1110
botanical oil,
Acarapis woodi, 221
honey bee, 221
thymol, 221
Varroa destructor, 221
Brachycaudus persicae,
Aphididae, 368
imidacloprid, 368
peach, 368
Prunus persicae, 368
Bracon cephi,
Bracon lissogaster, 1130
Cephus cinctus, 1130
chemical fallow, 1130
tillage, 1130
Wheat stem sawfly, 1130
Bracon lissogaster,
Bracon cephi, 1130
Cephus cinctus, 1130
chemical fallow, 1130
tillage, 1130
Wheat stem sawfly, 1130
broiler feed,
alternative protein sources, 214
Tenebrio molitor, 214
Bt corn,
Bacillus thuringiensis, 57
biotechnology, 878
economic impact, 57
European corn borer, 57, 878
field corn, 57
Lepidoptera, 622
maize, 622, 878
Noctuidae, 622
Ostrinia nubilalis, 57
Papaipema nebris, 622
survey, 878
transgenic corn, 878
Bt protein,
Cry1Ac protein, 826
Helicoverpa armigera, 826
resistance monitoring, 826
Bt transgenic cotton,
Helicoverpa armigera, 832
refugia, 832
resistance management, 832
Buchloë dactyloides,
Blissus occiduus, 1054
buffalograss, 1054
chinch bug, 1054
plant resistance, 1054
turf, 1054
buffalograss,
Blissus occiduus, 1054
Buchloë dactyloides, 1054
chinch bug, 1054
plant resistance, 1054
turf, 1054
bumble bee,
Bombus impatiens, 722
cyfluthrin, 722
ecotoxicology, 722
imidacloprid, 722
turfgrass, 722

C

Cacopsylla melanoneura,
apple proliferation, 544
phytoplasma vector, 544
population dynamics, 544
Cadra figulilella,
Amyelois transitella, 190
cold storage, 190
controlled atmospheres, 190
granulosis virus, 190
Plodia interpunctella, 190
calf manure,
biological control, 527
cow manure, 527
house fly, 527
Hydrotaea aenescens, 527
Callosobruchus maculatus,
Dinarmus basalis, 174
essential oils, 174
host-parasitoid relationships, 174
seed protection, 174
terpenes, 174
canna lily,
aesthetic injury level, 348
chrysanthemum, 348
Frankliniella occidentalis, 348
Popillia japonica, 348
carbon dioxide atmospheres,
apple maggot, 520
export, 520
Rhagoletis pomonella, 520
storage, 520
carboxylesterase, 407, 1001
acetylcholinesterase, 407
Aphis gossypii, 407
detoxication, 407
host plant, 407
insecticide resistance, 407, 1001
permethrin detoxification, 1001
carrying capacity,
insect colonization, 149
intraspecific competition, 149
Lutzomyia serrana, 149
optimizing colony production, 149
carry-over effects,
Choristoneura fumiferana, 578
oviposition inhibition, 578
residual effects, 578
sublethal effects, 578
Tebufenozide, 578
catnip,
Blattella germanica, 377
nepetalactone, 377
repellency, 377

cDNA,
acetylcholinesterase, 129
house fly, 129
insecticide resistance, 129
linkage analysis, 129
centipedegrass,
bermudagrass, 478
host plant resistance, 478
seashore paspalum, 478
turfgrass, 478
twolined spittlebug, 478
Cephus cinctus,
Bracon cephi, 1130
Bracon lissogaster, 1130
chemical fallow, 1130
tillage, 1130
Wheat stem sawfly, 1130
Cerambycidae,
body weight, 563
fecundity, 563
larval development, 563
Oemona hirta, 563
rearing, 563
Ceratitis capitata, 507, 936
food attractants, 507
liquid protein lure, 507
Mediterranean fruit fly, 936
monitoring, 507
orange ammonium lure, 507
quality control, 936
sterile insect technique, 936
synthetic lure, 507
Tephritidae, 936
Chaetocnema pulicaria,
Pantoea stewartii, 739
phytosanitary regulations, 739
plant disease management, 739
Zea mays, 739
chemical control,
hayfields, 307
Iceland, 307
Penthaleus major, 307
permethrin, 307
winter grain mite, 307
chemical fallow,
Bracon cephi, 1130
Bracon lissogaster, 1130
Cephus cinctus, 1130
tillage, 1130
Wheat stem sawfly, 1130
chemical stimuli,
corn hybrids, 1289
host selection, 1289
Sesamia nonagrioides, 1289
chinch bug,
Blissus occiduus, 1054
Buchloë dactyloides, 1054
buffalograss, 1054
plant resistance, 1054
turf, 1054
Chironomidae,
Chironomus crassicaudatus, 699
development, 699
life stages, 699
midge, 699
temperature, 699
Chironomus crassicaudatus,
Chironomidae, 699
development, 699
life stages, 699
midge, 699
temperature, 699
chlorfenapyr,
bioassay, 331
Epitrix fuscula, 331
spinosad, 331
thiamethoxam, 331
chlorpyrifos, 425, 813
acetylcholinesterase, 425, 813
chlorpyrifos-oxon, 813
Coptotermes formosanus, 813
eserine, 813
insecticide resistance, 425
meta-chloroperoxybenzoic acid, 425
profenofos, 425
resistance, 813
sulprofos, 425
chlorpyrifos-oxon,
acetylcholinesterase, 813
chlorpyrifos, 813
Coptotermes formosanus, 813
eserine, 813
resistance, 813
Choristoneura fumiferana,
carry-over effects, 578
oviposition inhibition, 578
residual effects, 578
sublethal effects, 578
Tebufenozide, 578
Choristoneura occidentalis,
biomass allocation, 587
herbivory, 587
Pseudotsuga menziesii, 587
shoot:root ratio, 587
Choristoneura rosaceana,
benzoylhydrazines, 820
indoxacarb, 820
insecticides, 820
resistance, 820
Tortricidae, 820
chrysanthemum,
aesthetic injury level, 348
canna lily, 348
Frankliniella occidentalis, 348
Popillia japonica, 348
Chrysomela scripta,
Populus, 313
short-rotation forestry, 313
Cirrospilus vittatus,
life history, 250
Phyllocnistis citrella, 250
temperature, 250
Citrullus lanatus,
Cucurbitaceae, 595
Hemiptera, 595
squash bug, 595
citrus, 167, 661, 856, 966, 1059
Aleyrodidae, 167
azadirachtin, 661
damage, 966
Diaprepes abbreviatus, 661, 856, 1059
Diaprepes root weevil, 1059
distribution, 167
host plant resistance, 1059
leaf area, 966
neem extract, 661
Neemix, 661
Phyllocnistis citrella, 966
Poncirus trifoliata, 1059
red navel 856
root weevil, 661, 856
sampling, 167
trap efficiency, 856
whiteflies, 167
yield, 966
citrus pollen,
Helicoverpa zea, 1174
marking, 1174
retention, 1174
Clavigralla tomentosicollis,
cowpea, 1281
dekindtiana, 1281
host plant resistance, 1281
mortality, 1281
Vigna unguiculata, 1281
closed-cell polyethylene,
Isoptera, 975
Sentricon, 975
termite baits, 975
Coccinellidae,
Acyrthosiphon kondoi, 552
host plant resistance, 552
tritrophic interactions, 552
cockroach control,
insecticide baits, 1
integrated pest management, 1
measurement, 1
monitoring, 1
public buildings, 1
Coffea arabica,
Acalolepta cervina, 106
Bacchisa pallidiventris, 106
Xylotrechus quadripes, 106
COII gene,
Coptotermes formosanus, 381
Formosan subterranean termite, 381
mtDNA, 381
cold storage,
Amyelois transitella, 190
Cadra figulilella, 190
controlled atmospheres, 190

granulosis virus, 190
Plodia interpunctella, 190
cole crops,
avaunt, 360
reduced-risk insecticide, 360
Trichoplusia ni, 360
commodity,
Cydia pomonella, 208
life history, 208
postharvest biology, 208
quarantine, 208
commodity treatment,
disinfestation, 893
fruit flies, 893
gamma radiation, 893
phytosanitary treatment, 893
postharvest, 893
conservation biological control,
action thresholds, 682
Bemisia argentifolii, 682
Bemisia tabaci, 682
pest management, 682
predators, 682
control strategies,
baits, 1245
insecticides, 1245
Musca domestica, 1245
resistance, 1245
controlled atmosphere,
Amyelois transitella, 190
Cadra figulilella, 190
cold storage, 190
granulosis virus, 190
Plodia interpunctella, 190, 1074
preserved flowers, 1074
Coptotermes formosanus, 121, 381, 813, 981, 989
acetylcholinesterase, 813
acoustics, 981
chlorpyrifos, 813
chlorpyrifos-oxon, 813
COII gene, 381
eserine, 813
foraging behavior, 121
Formosan subterranean termite, 381
insecticide, 989
interaction, 121
mtDNA, 381
resistance, 813, 989
Reticulitermes flavipes, 121, 981
Reticulitermes virginicus, 981
subterranean termites, 121
termite, 989
wood decay fungi, 121
Coreidae,
antibody, 770
Leptoglossus occidentalis, 770
Pinus contorta variety *latifolia*, 770
radiography, 770
seed orchard, 770
corn, 628, 1049, 1314
aflatoxin, 628, 1049
Aspergillus, 628
ethiprole, 1314
Helicoverpa zea, 628
maize weevil, 1314
plant resistance, 628, 1049
red flour beetle, 1314
rice weevil, 1314
southwestern corn borer, 1049
wheat, 1314
corn hybrids,
chemical stimuli, 1289
host selection, 1289
Sesamia nonagrioides, 1289
corn leafhopper,
corn stunt disease, 325
Dalbulus maidis, 325
insect vector, 325
reflective mulch, 325
Spiroplasma kunkelii, 325
corn rootworm, 96, 570
Diabrotica, 570
lure, 96
monitoring, 96
plant density, 570
root injury, 570
row spacing, 570
sampling, 96
tolerance, 570
trap, 96
corn stunt disease,
corn leafhopper, 325
Dalbulus maidis, 325
insect vector, 325
reflective mulch, 325
Spiroplasma kunkelii, 325
cost efficiency,
beneficial insect, 1159
fecundity, 1159
intrinsic rate of increase, 1159
predator, 1159
cotton, 286, 733, 754
Anthonomus grandis grandis, 754
Bemisia argentifolii, 733
Bemisia tabaci biotype B, 733
boll weevil, 754
host plant resistance, 733
kaolin, 754
normal-leaf, 733
okra-leaf, 733
oviposition, 286
particle film, 754
Pseudoplusia includens, 286
soybean, 286
coumaphos, 28, 227
Apis mellifera, 28, 227
diazinon, 227
fluvalinate, 28
honey bee, 28, 227
odor learning, 227
organophosphates, 227
Varroa destructor, 28
varroa mite, 28
cow manure,
biological control, 527
calf manure, 527
house fly, 527
Hydrotaea aenescens, 527
cowpea,
Clavigralla tomentosicollis, 1281
dekindtiana, 1281
host plant resistance, 1281
mortality, 1281
Vigna unguiculata, 1281
crop loss,
Cryptorhynchus mangiferae, 336
fruit drop, 336
quarantine pest, 336
Sternochetus mangiferae, 336
crop preference,
elemental markers, 278
insect dispersal, 278
Pseudoplusia includens, 278
cross-resistance, 399, 871, 1267
acaricide, 1267
allozyme, 1267
Drosophila melanogaster, 871
general esterase, 399
genetic correlation, 871
genetic mapping, 871
insecticide resistance, 399, 871
linkage, 1267
Oligonychus pratensis, 399
resistance mechanism, 399
Tetranychus urticae, 399, 1267
Cry1Ac protein,
Bt protein, 826
Helicoverpa armigera, 826
resistance monitoring, 826
Cry34Ab1,
Bacillus thuringiensis, 635
binary crystal protein, 635
Cry35Ab1, 635
rootworm, 635
Cry35Ab1,
Bacillus thuringiensis, 635
binary crystal protein, 635
Cry34Ab1, 635
rootworm, 635
Cryptorhynchus mangiferae,
crop loss, 336
fruit drop, 336
quarantine pest, 336
Sternochetus mangiferae, 336
cucumber,
Cucumis sativus, 952
leaf-cell -tissue damage, 952
Tetranychus urticae, 952
twospotted spider mite, 952

Cucumis sativus,
cucumber, 952
leaf-cell -tissue damage, 952
Tetranychus urticae, 952
twospotted spider mite, 952
Cucurbitaceae,
Citrullus lanatus, 595
Hemiptera, 595
squash bug, 595
cultural management,
Frankliniella occidentalis, 1216
Thripidae, 1216
tomato spotted wilt, 1216
Curcuma,
antifeedant, 183
leaf oil, 183
oviposition-deterrent, 183
Rhyzopertha, 183
Sitophilus, 183
Cydia pomonella,
commodity, 208
life history, 208
postharvest biology, 208
quarantine, 208
cyfluthrin,
Bombus impatiens, 722
bumble bee, 722
ecotoxicology, 722
imidacloprid, 722
turfgrass, 722
cypermethrin,
endosulfan, 134
fenvalerate, 134
Helicoverpa armigera, 134
insecticide resistance, 134
quinalphos, 134
cyromazine,
fitness, 1251
genetics, 1251
Musca domestica, 1251
resistance, 1251

D

dairy,
horn fly, 1113
horn fly management, 1113
integrated pest management, 1113
pasture fly management, 1113
walk-through fly trap, 1113
Dalbulus maidis,
corn leafhopper, 325
corn stunt disease, 325
insect vector, 325
reflective mulch, 325
Spiroplasma kunkelii, 325
damage,
citrus, 966
leaf area, 966
Phyllocnistis citrella, 966
yield, 966
defoliation,
double-crop, 945
full-season, 945
Glycine max, 945
leaf area index, 945
soybean, 945
dekindtiana,
Clavigralla tomentosicollis, 1281
cowpea, 1281
host plant resistance, 1281
mortality, 1281
Vigna unguiculata, 1281
Dendroctonus pseudotsugae,
Douglas-fir beetle, 778
3-methylcyclohex-2-en-1-one, 778
deoxysepiapterin,
age, 1319
Anastrepha ludens, 1319
fluorescence, 1319
sepiapterin, 1319
Desmia funeralis,
(Z,Z)-11,13-hexadecadienal, 692
(Z)-11-hexadecenal, 692
11-hexadecynal, 692
sex pheromone, 692
detoxication,
acetylcholinesterase, 407
Aphis gossypii, 407
carboxylesterase, 407
host plant, 407
insecticide resistance, 407
development,
Chironomidae, 699
Chironomus crassicaudatus, 699
life stages, 699
midge, 699
temperature, 699
Diabrotica,
corn rootworm, 570
plant density, 570
root injury, 570
row spacing, 570
tolerance, 570
Diabrotica virgifera virgifera,
biochemical marker, 1261
esterase, 1261
insecticide resistance, 1261
Diaprepes abbreviatus, 661, 856, 1059
azadirachtin, 661
citrus, 661, 856, 1059
Diaprepes root weevil, 1059
host plant resistance, 1059
neem extract, 661
Neemix, 661
Poncirus trifoliata, 1059
red navel, 856
root weevil, 661, 856
trap efficiency, 856
Diaprepes root weevil,
citrus, 1059
Diaprepes abbreviatus, 1059
host plant resistance, 1059
Poncirus trifoliata, 1059
Diatraea grandiosella,
European corn borer, 1033
Ostrinia nubilalis, 1033
resistance management, 1033
simulation modeling, 1033
southwestern corn borer, 1033
Diatraea saccharalis,
Eoreuma loftini, 469
Galanthus nivalis agglutinin, 469
life history parameters, 469
snowdrop lectin, 469
diazinon,
Apis mellifera, 227
coumaphos, 227
honey bee, 227
odor learning, 227
organophosphates, 227
Dicyphus tamaninii,
biological control, 1123
intraguild predation, 1123
Macrolophus caliginosus, 1123
mirid, 1123
zoophytophagy, 1123
diet bioassay,
Avermectin, 1185
foliage bioassay, 1185
pesticide, 1185
photodegradate, 1185
Plutella xylostella, 1185
Dinarmus basalis,
Callosobruchus maculatus, 174
essential oils, 174
host-parasitoid relationships, 174
seed protection, 174
terpenes, 174
Diptera,
Hermetia illucens, 598
Stratiomyidae, 598
disease,
biological control, 558
entomopathogen, 558
fire ant, 558
pathogen, 558
Solenopsis invicta, 558
disinfestation,
commodity treatment, 893
fruit flies, 893
gamma radiation, 893
phytosanitary treatment, 893
postharvest, 893
disparlure,
Bacillus thuringiensis, 1205
eradication, 1205
gypsy moth, 1205
mating disruption, 1205

pheromone traps, 1205
distribution,
Aleyrodidae, 167
citrus, 167
sampling, 167
whiteflies, 167
Diuraphis noxia,
biotype, 463
phloem translocation, 463
Schizaphis graminum, 463
Triticum aestivum, 463
vein loading, 463
double-crop,
defoliation, 945
full-season, 945
Glycine max, 945
leaf area index, 945
soybean, 945
Douglas-fir beetle,
Dendroctonus pseudotsugae, 778
3-methylcyclohex-2-en-1-one, 778
Drosophila melanogaster, 871, 1229
cross-resistance, 871
genetic correlation, 871
genetic mapping, 871
insecticide resistance, 871, 1229
natural populations, 1229
negative correlation, 1229
productivity, 1229

E

ecdysone agonist,
beet armyworm, 414
insect growth regulator, 414
insect resistance to insecticides, 414
economic impact,
Bacillus thuringiensis, 57
Bt corn, 57
European corn borer, 57
field corn, 57
Ostrinia nubilalis, 57
economic injury,
economic threshold, 89
Schizaphis graminum, 89
Triticum aestivum, 89
economic threshold,
economic injury, 89
Schizaphis graminum, 89
Triticum aestivum, 89
ecotoxicology,
Bombus impatiens, 722
bumble bee, 722
cyfluthrin, 722
imidacloprid, 722
turfgrass, 722
efficacy assessment,
spinosad residues, 1102
stored wheat, 1102
stored-grain insects, 1102
egg eclosion,
Hemiptera, 44
Macrolophus pygmaeus, 44
method, 44
oviposition, 44
egg parasitoids,
Ephestia kuehniella, 50
host-feeding, 50
parasitism, 50
temperature, 50
Trichogramma turkestanica, 50
electroantennogram,
plant volatiles, 269
rice hopper, 269
elemental markers,
crop preference, 278
insect dispersal, 278
Pseudoplusia includens, 278
elimination,
Amitermes evuncifer, 531
Odontotermes smeathmani, 531
thiamethoxam, 531
Trinervitermes trinervius, 531
tropical crops pest, 531
Empoasca fabae,
glandular trichomes, 437
host plant resistance, 437
Medicago sativa, 437
principal components analysis, 437
pubescence, 437
endophyte,
forage, 487
host plant resistance, 487
sod production, 487
Spodoptera frugiperda, 487
turfgrass, 487
endosulfan,
cypermethrin, 134
fenvalerate, 134
Helicoverpa armigera, 134
insecticide resistance, 134
quinalphos, 134
enhancement,
inhibitors, 237
Lymantria dispar, 237
viral activity, 237
entomopathogen, 36, 558
Anastrepha ludens, 36
Beauveria bassiana, 36
bioassays, 36
biological control, 558
disease, 558
fire ant, 558
fruit flies, 36
pathogen, 558
Solenopsis invicta, 558
virulence, 36
entomopathogenic fungi, 651, 675
Beauveria bassiana, 651, 675
beetles, 651
biological control, 675
Locusta migratoria capito, 651
locusts, 651
Lygus lineolaris, 675
Metarhizium anisopliae, 675
Metarhizium flavoviride, 651
pathogenicity, 675
Eoreuma loftini,
Diatraea saccharalis, 469
Galanthus nivalis agglutinin, 469
life history parameters, 469
snowdrop lectin, 469
Ephestia kuehniella,
egg parasitoids, 50
host-feeding, 50
parasitism, 50
temperature, 50
Trichogramma turkestanica, 50
Epitrix fuscula,
bioassay, 331
chlorfenapyr, 331
spinosad, 331
thiamethoxam, 331
eradication,
Bacillus thuringiensis, 1205
disparlure, 1205
gypsy moth, 1205
mating disruption, 1205
pheromone traps, 1205
eserine,
acetylcholinesterase, 813
chlorpyrifos, 813
chlorpyrifos-oxon, 813
Coptotermes formosanus, 813
resistance, 813
essential oils,
Callosobruchus maculatus, 174
Dinarmus basalis, 174
host-parasitoid relationships, 174
seed protection, 174
terpenes, 174
esterase,
biochemical marker, 1261
Diabrotica virgifera virgifera, 1261
insecticide resistance, 1261
ethiprole,
corn, 1314
maize weevil, 1314
red flour beetle, 1314
rice weevil, 1314
wheat, 1314
European corn borer, 57, 155, 614, 878, 1033
Bacillus thuringiensis, 57, 614
Bacillus thuringiensis corn, 155
biotechnology, 878

bivoltine ecotype, 155
Bt corn, 57
Bt corn, 878
Diatraea grandiosella, 1033
economic impact, 57
field corn, 57
host plant resistance, 614
maize, 878
Ostrinia nubilalis, 57, 1033
permethrin, 155
pest resistance, 614
resistance management, 1033
simulation modeling, 1033
South Dakota, 155
southwestern corn borer, 1033
survey, 878
transgenic corn, 878
transgenic plant, 614
yield, 155
Exomala orientalis, 72, 918
biological control, 918
golf course, 72
Heterorhabditis, 918
Japanese chestnut, 72
scarab beetles, 918
Scarabaeidae, 72
Steinernema, 918
turfgrass, 72
white grub, 72, 918
export,
apple maggot, 520
carbon dioxide atmospheres, 520
Rhagoletis pomonella, 520
storage, 520

F

facultative parasite,
Acthina tumida, 902
Apis mellifera, 902
pupation success, 902
reproductive success, 902
sex ratio, 902
fecundity, 563, 729, 912, 1159
beneficial insect, 1159
body weight, 563
Cerambycidae, 563
cost efficiency, 1159
field success, 912
hormoligosis, 729
imidacloprid, 729
intrinsic rate of increase, 1159
larval development, 563
mass rearing, 912
Oemona hirta, 563
predator, 1159
rearing, 563
Tetranychus urticae, 729
Trichogramma, 912
twospotted spider mite, 729
fenvalerate,
cypermethrin, 134
endosulfan, 134
Helicoverpa armigera, 134
insecticide resistance, 134
quinalphos, 134
field corn,
Bacillus thuringiensis, 57
Bt corn, 57
economic impact, 57
European corn borer, 57
Ostrinia nubilalis, 57
field success,
fecundity, 912
mass rearing, 912
Trichogramma, 912
fire ant,
biological control, 558
disease, 558
entomopathogen, 558
pathogen, 558
Solenopsis invicta, 558
fitness,
cyromazine, 1251
genetics, 1251
Musca domestica, 1251
resistance, 1251
fitness cost,
Helicoverpa zea, 1008
Heliothis virescens, 1008
mathematical model, 1008
pyrethroid resistance, 1008
relative fitness estimates, 1008
flight initiation,
north-south gradient, 1195
Scolytidae, 1195
shoot departure, 1195
Tomicus piniperda, 1195
flooding,
Lissorhoptrus oryzophilus, 715
Oryza sativa, 715
oviposition, 715
rice, 715
rice water weevil, 715
fluorescence,
age, 1319
Anastrepha ludens, 1319
deoxysepiapterin, 1319
sepiapterin, 1319
fluvalinate,
Apis mellifera, 28
coumaphos, 28
honey bee, 28
Varroa destructor, 28
varroa mite, 28
foliage bioassay,
Avermectin, 1185
diet bioassay, 1185
pesticide, 1185
photodegradate, 1185
Plutella xylostella, 1185
food attractants,
Ceratitis capitata, 507
liquid protein lure, 507
monitoring, 507
orange ammonium lure, 507
synthetic lure, 507
food odors,
behavior, 1333
oviposition, 1333
packaging, 1333
forage,
endophyte, 487
host plant resistance, 487
sod production, 487
Spodoptera frugiperda, 487
turfgrass, 487
foraging behavior,
Coptotermes formosanus, 121
interaction, 121
Reticulitermes flavipes, 121
subterranean termites, 121
wood decay fungi, 121
Formosan subterranean termite,
COII gene, 381
Coptotermes formosanus, 381
mtDNA, 381
Frankliniella occidentalis, 348, 1216
aesthetic injury level, 348
canna lily, 348
chrysanthemum, 348
cultural management, 1216
Popillia japonica, 348
Thripidae, 1216
tomato spotted wilt, 1216
fruit drop,
crop loss, 336
Cryptorhynchus mangiferae, 336
quarantine pest, 336
Sternochetus mangiferae, 336
fruit fly, 36, 893
Anastrepha ludens, 36
Beauveria bassiana, 36
biennial production, 958
bioassays, 36
blueberry, 958
commodity treatment, 893
disinfestation, 893
entomopathogen, 36
gamma radiation, 893
integrated pest management, 958
phytosanitary treatment, 893
postharvest, 893
Rhagoletis mendax, 958
virulence, 36
fruiting vegetables,
Bemisia argentifolii, 317
horticultural oil, 317
kaolin particle film, 317
repellency, 317

whitefly, 317
full-season,
defoliation, 945
double-crop, 945
Glycine max, 945
leaf area index, 945
soybean, 945
fumigation,
pest control, 1169
postharvest, 1169
quarantine treatment, 1169

G

Galanthus nivalis agglutinin,
Diatraea saccharalis, 469
Eoreuma loftini, 469
life history parameters, 469
snowdrop lectin, 469
gamma radiation,
commodity treatment, 893
disinfestation, 893
fruit flies, 893
phytosanitary treatment, 893
postharvest, 893
general esterase,
cross-resistance, 399
insecticide resistance, 399
Oligonychus pratensis, 399
resistance mechanism, 399
Tetranychus urticae, 399
genetic correlation,
cross-resistance, 871
Drosophila melanogaster, 871
genetic mapping, 871
insecticide resistance, 871
genetic mapping,
cross-resistance, 871
Drosophila melanogaster, 871
genetic correlation, 871
insecticide resistance, 871
genetics, 862, 1251
cyromazine, 1251
fitness, 1251
Musca domestica, 1251
phosphine, 862
resistance, 862, 1251
Rhyzopertha dominica, 862
German cockroach,
insecticide, 390
mortality, 390
soap, 390
glandular trichomes,
Empoasca fabae, 437
host plant resistance, 437
Medicago sativa, 437
principal components analysis, 437
pubescence, 437
Glycine max, 945, 1275
bioengineered soybeans, 1275
defoliation, 945
double-crop, 945
full-season, 945
herbicide, 1275
host suitability, 1275
leaf area index, 945
Plathypena scabra, 1275
RoundUp Ready Soybeans, 1275
soybean, 945
golf course,
Exomala orientalis, 72
Japanese chestnut, 72
Scarabaeidae, 72
turfgrass, 72
white grub, 72
grain insects,
grain protectant, 640
pest management, 640
spinosad, 640
stored wheat, 640
grain probe trap,
automated monitoring, 1326
Oryzaephilus surinamensis, 1326
Sitophilus oryzae, 1326
Tribolium castaneum, 1326
grain protectant,
grain insects, 640
pest management, 640
spinosad, 640
stored wheat, 640
granular baits,
boric acid, 1110
house fly, 1110
Musca domestica, 1110
repellency, 1110
granulosis virus,
Amyelois transitella, 190
Cadra figulilella, 190
cold storage, 190
controlled atmospheres, 190
Plodia interpunctella, 190
Grapholita molesta,
ground cover, 803
Lygus lineolaris, 803
mating disruption, 803
peach orchards, 803
greenhouse plastic,
aphids, 113
pest management, 113
thrips, 113
Trialeurodes vaporariorum, 113
ultraviolet light, 113
greenhouses,
aphid monitoring, 493
Macrosiphum euphorbiae, 493
projection pursuit regression, 493
sampling, 493
visual methods, 493
ground cover,
Grapholita molesta, 803
Lygus lineolaris, 803
mating disruption, 803
peach orchards, 803
gypsy moth,
Bacillus thuringiensis, 1205
disparlure, 1205
eradication, 1205
mating disruption, 1205
pheromone traps, 1205

H

hayfields,
chemical control, 307
Iceland, 307
Penthaleus major, 307
permethrin, 307
winter grain mite, 307
head capsule widths,
Acrobasis vaccinii, 1308
instars, 1308
Vaccinium macrocarpon, 1308
head width,
ant preference, 1222
bait, 1222
particle size, 1222
pest ants, 1222
Helicoverpa armigera, 134, 826, 832, 1303
Bt protein, 826
Bt transgenic cotton, 832
Cry1Ac protein, 826
cypermethrin, 134
endosulfan, 134
fenvalerate, 134
Helicoverpa zea, 1303
host plant resistance, 1303
husk tightness, 1303
husk wrap, 1303
insecticide resistance, 134
quinalphos, 134
refugia, 832
resistance management, 832
resistance monitoring, 826
Zea mays, 1303
Helicoverpa zea, 81, 243, 261, 458, 628, 763, 1008, 1174, 1303
aflatoxin, 628
Anagrapha falcifera nucleopolyhedrovirus, 81
Aspergillus, 628
Bacillus thuringiensis cotton, 763
behavior, 763
bollworm, 763
citrus pollen, 1174
corn, 628
fitness cost, 1008
Helicoverpa armigera, 1303
Heliothis virescens, 1008
host plant resistance, 1303
husk tightness, 1303
husk wrap, 1303

marking, 1174
mathematical model, 1008
peroxidase, 81
plant resistance, 458, 628
pyrethroid resistance, 1008
relative fitness estimates, 1008
retention, 1174
selection, 458
Spodoptera exigua, 243, 261
transgenic, 763
transgenic plants, 81
ultraviolet light, 261
ultraviolet radiation, 243
viruses, 243
visible light, 261
Zea mays, 458, 1303
Heliothis virescens,
fitness cost, 1008
Helicoverpa zea, 1008
mathematical model, 1008
pyrethroid resistance, 1008
relative fitness estimates, 1008
Hemiptera, 44, 595
Citrullus lanatus, 595
Cucurbitaceae, 595
egg eclosion, 44
Macrolophus pygmaeus, 44
method, 44
oviposition, 44
squash bug, 595
hemolysin,
insecticide, 603
lectin, 603
mushrooms, 603
protein, 603
serpin, 603
herbicide,
bioengineered soybeans, 1275
Glycine max, 1275
host suitability, 1275
Plathypena scabra, 1275
RoundUp Ready Soybeans, 1275
herbivory, 587, 1190
biomass allocation, 587
Choristoneura occidentalis, 587
leaf area, 1190
Pseudotsuga menziesii, 587
shoot:root ratio, 587
soybean, 1190
video image analysis, 1190
Hermetia illucens,
Diptera, 598
Stratiomyidae, 598
Heterorhabditis,
biological control, 918
Exomala orientalis, 918
scarab beetles, 918
Steinernema, 918
white grub, 918
(Z,Z)-11,13-hexadecadienal,
(Z)-11-hexadecenal, 692
11-hexadecynal, 692
Desmia funeralis, 692
sex pheromone, 692
(Z)-11-hexadecenal,
(Z,Z)-11,13-hexadecadienal, 692
11-hexadecynal, 692
Desmia funeralis, 692
sex pheromone, 692
11-hexadecynal,
(Z)-11-hexadecenal, 692
(Z,Z)-11,13-hexadecadienal, 692
Desmia funeralis, 692
sex pheromone, 692
Homoptera,
Aphididae, 782
kaolin, 782
Melanocallis caryaefoliae, 782
particle film, 782
pecan, 782
honey bee, 28, 221, 227, 1119
Acarapis woodi, 221
American foulbrood, 1119
Apis mellifera, 28, 227
botanical oil, 221
coumaphos, 28, 227
diazinon, 227
fluvalinate, 28
odor learning, 227
organophosphates, 227
small hive beetle, 1119
thymol, 221
tylosin, 1119
Varroa destructor, 28, 221
varroa mite, 28
honeydew,
Aphis gosssypii, 299
melezitose, 299
sticky cotton, 299
thermodetector, 299
threshold, 299
hormoligosis,
fecundity, 729
imidacloprid, 729
Tetranychus urticae, 729
twospotted spider mite, 729
horn fly,
dairy, 1113
horn fly management, 1113
integrated pest management, 1113
pasture fly management, 1113
walk-through fly trap, 1113
horn fly management,
dairy, 1113
horn fly, 1113
integrated pest management, 1113
pasture fly management, 1113
walk-through fly trap, 1113
horticultural oil,
Bemisia argentifolii, 317
fruiting vegetables, 317
kaolin particle film, 317
repellency, 317
whitefly, 317
host ant acceptability,
Argentina, 1151
biological control, 1151
Pseudacteon, 1151
Solenopsis, 1151
host plant,
acetylcholinesterase, 407
Aphis gossypii, 407
carboxylesterase, 407
detoxication, 407
insecticide resistance, 407
host plant resistance, 437, 478, 487, 552, 608, 614, 733, 1059, 1066, 1281, 1303
Acyrthosiphon kondoi, 552
alkaloids, 608
Bacillus thuringiensis, 614
beans, 1066
Bemisia argentifolii, 733
Bemisia tabaci biotype B, 733
bermudagrass, 478
centipedegrass, 478
citrus, 1059
Clavigralla tomentosicollis, 1281
Coccinellidae, 552
cotton, 733
cowpea, 1281
dekindtiana, 1281
Diaprepes abbreviatus, 1059
Diaprepes root weevil, 1059
Empoasca fabae, 437
endophyte, 487
European corn borer, 614
forage, 487
glandular trichomes, 437
Helicoverpa armigera, 1303
Helicoverpa zea, 1303
husk tightness, 1303
husk wrap, 1303
leader mortality, 608
Medicago sativa, 437
melon thrips, 1066
mortality, 1281
normal-leaf, 733
okra-leaf, 733
pest resistance, 614
Phaseolus vulgaris, 1066
Picea sitchensis, 608
Pissodes strobi, 608
Poncirus trifoliata, 1059
principal components analysis, 437
pubescence, 437
seashore paspalum, 478

sod production, 487
Spodoptera frugiperda, 487
Thrips palmi, 1066
transgenic plant, 614
tritrophic interactions, 552
turfgrass, 478, 487
twolined spittlebug, 478
Vigna unguiculata, 1281
Zea mays, 1303
host preference,
Bacillus thuringiensis, 143
neonate, 143
oviposition, 143
Pectinophora gossypiella, 143
resistance management, 143
host selection,
chemical stimuli, 1289
corn hybrids, 1289
Sesamia nonagrioides, 1289
host suitability,
bioengineered soybeans, 1275
Glycine max, 1275
herbicide, 1275
Plathypena scabra, 1275
RoundUp Ready Soybeans, 1275
host-feeding,
egg parasitoids, 50
Ephestia kuehniella, 50
parasitism, 50
temperature, 50
Trichogramma turkestanica, 50
host-parasitoid relationships,
Callosobruchus maculatus, 174
Dinarmus basalis, 174
essential oils, 174
seed protection, 174
terpenes, 174
house fly, 129, 527, 1110
acetylcholinesterase, 129
biological control, 527
boric acid, 1110
calf manure, 527
cDNA, 129
cow manure, 527
granular baits, 1110
Hydrotaea aenescens, 527
insecticide resistance, 129
linkage analysis, 129
Musca domestica, 1110
repellency, 1110
husk tightness,
Helicoverpa armigera, 1303
Helicoverpa zea, 1303
host plant resistance, 1303
husk wrap, 1303
Zea mays, 1303
husk wrap,
Helicoverpa armigera, 1303
Helicoverpa zea, 1303
host plant resistance, 1303
husk tightness, 1303
Zea mays, 1303
Hydrotaea aenescens,
biological control, 527
calf manure, 527
cow manure, 527
house fly, 527
Hypera postica,
alfalfa weevil, 748
integrated pest management, 748
monitoring, 748

I

Iceland,
chemical control, 307
hayfields, 307
Penthaleus major, 307
permethrin, 307
winter grain mite, 307
imidacloprid, 368, 722, 729
Aphididae, 368
Bombus impatiens, 722
Brachycaudus persicae, 368
bumble bee, 722
cyfluthrin, 722
ecotoxicology, 722
fecundity, 729
hormoligosis, 729
peach, 368
Prunus persicae, 368
Tetranychus urticae, 729
turfgrass, 722
twospotted spider mite, 729
indoxacarb,
benzoylhydrazines, 820
Choristoneura rosaceana, 820
insecticides, 820
resistance, 820
Tortricidae, 820
inheritance,
Plutella xylostella, 430
resistance, 430
spinosad, 430
synergism, 430
inhibitors,
enhancement, 237
Lymantria dispar, 237
viral activity, 237
insect colonization,
carrying capacity, 149
intraspecific competition, 149
Lutzomyia serrana, 149
optimizing colony production, 149
insect dispersal,
crop preference, 278
elemental markers, 278
Pseudoplusia includens, 278
insect growth regulator,
beet armyworm, 414
ecdysone agonist, 414
insect resistance to insecticides, 414
insect resistance to insecticides,
beet armyworm, 414
ecdysone agonist, 414
insect growth regulator, 414
insect vector,
corn leafhopper, 325
corn stunt disease, 325
Dalbulus maidis, 325
reflective mulch, 325
Spiroplasma kunkelii, 325
insecticide, 294, 390, 603, 820, 989, 1245
baits, 1245
benzoylhydrazines, 820
Choristoneura rosaceana, 820
control strategies, 1245
Coptotermes formosanus, 989
German cockroach, 390
hemolysin, 603
indoxacarb, 820
lectin, 603
Melanotaenia, 294
mortality, 390
mosquitoes, 294
Musca domestica, 1245
mushrooms, 603
nontarget, 294
protein, 603
rainbowfish, 294
resistance, 820, 989, 1245
serpin, 603
soap, 390
termite, 989
Tortricidae, 820
toxicity, 294
insecticide baits,
cockroach control, 1
integrated pest management, 1
measurement, 1
monitoring, 1
public buildings, 1
insecticide resistance, 129, 134, 399, 407, 425, 838, 871, 1001, 1229, 1261
acetylcholinesterase, 129, 407, 425
Aphis gossypii, 407
biochemical marker, 1261
carboxylesterase, 407, 1001
cDNA, 129
chlorpyrifos, 425
cross-resistance, 399, 871
cypermethrin, 134
detoxication, 407
Diabrotica virgifera virgifera, 1261
Drosophila melanogaster, 871, 1229
endosulfan, 134
esterase, 1261

fenvalerate, 134
general esterase, 399
genetic correlation, 871
genetic mapping, 871
Helicoverpa armigera, 134
host plant, 407
house fly, 129
kdr mutation, 838
linkage analysis, 129
meta-chloroperoxybenzoic acid, 425
molecular diagnostic, 838
natural populations, 1229
negative correlation, 1229
Oligonychus pratensis, 399
para sodium channel gene, 838
permethrin detoxification, 1001
productivity, 1229
profenofos, 425
pyrethroid, 838
quinalphos, 134
resistance mechanism, 399
sulprofos, 425
Tetranychus urticae, 399
western flower thrips, 838
instars,
Acrobasis vaccinii, 1308
head capsule widths, 1308
Vaccinium macrocarpon, 1308
integrated pest management, 1, 372, 748, 789, 958, 1079, 1089, 1113
alfalfa weevil, 748
beneficial arthropods, 789
biennial production, 958
biological control, 1079
blueberry, 958
cockroach control, 1
dairy, 1113
fruit fly, 958
horn fly, 1113
horn fly management, 1113
Hypera postica, 748
insecticide baits, 1
key plant, 789
landscape, 789
Lasioderma serricorne, 1089
Lycopersicon esculentum, 372
measurement, 1
monitoring, 1, 748, 1089
pasture fly management, 1113
pesticide use, 789
Plodia interpunctella, 1089
Prostephanus truncatus, 1079
public buildings, 1
Rhagoletis mendax, 958
silverleaf whitefly, 372
Sitophilus zeamais, 1079
spiders, 789
stored products, 1079
Teretrius nigrescens, 1079
Tribolium castaneum, 1089
Trogoderma variabile, 1089
walk-through fly trap, 1113
interaction,
Coptotermes formosanus, 121
foraging behavior, 121
Reticulitermes flavipes, 121
subterranean termites, 121
wood decay fungi, 121
intraguild predation,
biological control, 1123
Dicyphus tamaninii, 1123
Macrolophus caliginosus, 1123
mirid, 1123
zoophytophagy, 1123
intraspecific competition,
carrying capacity, 149
insect colonization, 149
Lutzomyia serrana, 149
optimizing colony production, 149
intrinsic rate of increase,
beneficial insect, 1159
cost efficiency, 1159
fecundity, 1159
predator, 1159
Isoptera,
closed-cell polyethylene, 975
Sentricon, 975
termite baits, 975

J

Japanese chestnut,
Exomala orientalis, 72
golf course, 72
Scarabaeidae, 72
turfgrass, 72
white grub, 72

K

kaolin, 754, 782
Anthonomus grandis grandis, 754
Aphididae, 782
boll weevil, 754
cotton, 754
Homoptera, 782
Melanocallis caryaefoliae, 782
particle film, 754, 782
pecan, 782
kaolin particle film,
Bemisia argentifolii, 317
fruiting vegetables, 317
horticultural oil, 317
repellency, 317
whitefly, 317
kdr mutation,
insecticide resistance, 838
molecular diagnostic, 838
para sodium channel gene, 838
pyrethroid, 838
western flower thrips, 838
key plant,
beneficial arthropods, 789
integrated pest management, 789
landscape, 789
pesticide use, 789
spiders, 789

L

laboratory bioassays,
biological control, 908
Muscidifurax, 908
Trichomalopsis, 908
Urolepis, 908
landscape,
beneficial arthropods, 789
integrated pest management, 789
key plant, 789
pesticide use, 789
spiders, 789
larval development,
body weight, 563
Cerambycidae, 563
fecundity, 563
Oemona hirta, 563
rearing, 563
larval diet,
mass, 1337
rearing, 1337
recycled paper, 1337
screwworm, 1337
Lasioderma serricorne,
integrated pest management, 1089
monitoring, 1089
Plodia interpunctella, 1089
Tribolium castaneum, 1089
Trogoderma variabile, 1089
lavandulol,
lavandulyl senecioate, 706
pheromone, 706
Planococcus ficus, 706
sampling, 706
lavandulyl senecioate,
lavandulol, 706
pheromone, 706
Planococcus ficus, 706
sampling, 706
leader mortality,
alkaloids, 608
host plant resistance, 608
Picea sitchensis, 608
Pissodes strobi, 608
leaf area, 966, 1190
citrus, 966
damage, 966
herbivory, 1190
Phyllocnistis citrella, 966
soybean, 1190

video image analysis, 1190
yield, 966
leaf area index,
defoliation, 945
double-crop, 945
full-season, 945
Glycine max, 945
soybean, 945
leaf oil,
antifeedant, 183
Curcuma, 183
oviposition-deterrent, 183
Rhyzopertha, 183
Sitophilus, 183
leaf-cell -tissue damage,
cucumber, 952
Cucumis sativus, 952
Tetranychus urticae, 952
twospotted spider mite, 952
leaf-cutting ants,
alarm pheromone, 537
bait enhancement, 537
lectin,
hemolysin, 603
insecticide, 603
mushrooms, 603
protein, 603
serpin, 603
Lepidoptera,
Bt corn, 622
maize, 622
Noctuidae, 622
Papaipema nebris, 622
Leptoglossus occidentalis,
antibody, 770
Coreidae, 770
Pinus contorta variety *latifolia*, 770
radiography, 770
seed orchard, 770
life history, 208, 250
Cirrospilus vittatus, 250
commodity, 208
Cydia pomonella, 208
Phyllocnistis citrella, 250
postharvest biology, 208
quarantine, 208
temperature, 250
life history parameters,
Diatraea saccharalis, 469
Eoreuma loftini, 469
Galanthus nivalis agglutinin, 469
snowdrop lectin, 469
life stages,
Chironomidae, 699
Chironomus crassicaudatus, 699
development, 699
midge, 699
temperature, 699
linkage,
acaricide, 1267
allozyme, 1267
cross-resistance, 1267
Tetranychus urticae, 1267
linkage analysis,
acetylcholinesterase, 129
cDNA, 129
house fly, 129
insecticide resistance, 129
liquid protein lure,
Ceratitis capitata, 507
food attractants, 507
monitoring, 507
orange ammonium lure, 507
synthetic lure, 507
Lissorhoptrus oryzophilus,
flooding, 715
Oryza sativa, 715
oviposition, 715
rice, 715
rice water weevil, 715
Locusta migratoria capito,
Beauveria bassiana, 651
beetles, 651
entomopathogenic fungi, 651
locusts, 651
Metarhizium flavoviride, 651
locusts,
Beauveria bassiana, 651
beetles, 651
entomopathogenic fungi, 651
Locusta migratoria capito, 651
Metarhizium flavoviride, 651
lucerne,
Apis, 22
Megachile, 22
Nomia, 22
Osmia, 22
pollination efficiency, 22
lure,
corn rootworm, 96
monitoring, 96
sampling, 96
trap, 96
Lutzomyia serrana,
carrying capacity, 149
insect colonization, 149
intraspecific competition, 149
optimizing colony production, 149
Lycopersicon esculentum,
integrated pest management, 372
silverleaf whitefly, 372
Lygocoris inconspicuous,
Miridae, 354
plant bugs, 354
Taedia scrupeus, 354
vineyard, 354
Lygus hesperus,
antifungal, 256
artificial diet, 256
mass rearing, 256
plant bugs, 256
Lygus lineolaris, 675, 803
Beauveria bassiana, 675
biological control, 675
entomopathogenic fungi, 675
Grapholita molesta, 803
ground cover, 803
mating disruption, 803
Metarhizium anisopliae, 675
pathogenicity, 675
peach orchards, 803
Lymantria dispar,
enhancement, 237
inhibitors, 237
viral activity, 237
lytic peptide,
nontarget organisms, 797
pear psylla, 797
transgenic pear, 797

M

Macrolophus caliginosus,
biological control, 1123
Dicyphus tamaninii, 1123
intraguild predation, 1123
mirid, 1123
zoophytophagy, 1123
Macrolophus pygmaeus,
egg eclosion, 44
Hemiptera, 44
method, 44
oviposition, 44
Macrosiphum euphorbiae,
aphid monitoring, 493
greenhouses, 493
projection pursuit regression, 493
sampling, 493
visual methods, 493
maize, 622, 878
biotechnology, 878
Bt corn, 622, 878
European corn borer, 878
Lepidoptera, 622
Noctuidae, 622
Papaipema nebris, 622
survey, 878
transgenic corn, 878
maize weevil,
corn, 1314
ethiprole, 1314
red flour beetle, 1314
rice weevil, 1314
wheat, 1314
marking,
citrus pollen, 1174
Helicoverpa zea, 1174
retention, 1174

mass,
larval diet, 1337
rearing, 1337
recycled paper, 1337
screwworm, 1337
mass rearing, 256, 912
antifungal, 256
artificial diet, 256
fecundity, 912
field success, 912
Lygus hesperus, 256
plant bugs, 256
Trichogramma, 912
mathematical model,
fitness cost, 1008
Helicoverpa zea, 1008
Heliothis virescens, 1008
pyrethroid resistance, 1008
relative fitness estimates, 1008
mating disruption, 803, 1205
Bacillus thuringiensis, 1205
disparlure, 1205
eradication, 1205
Grapholita molesta, 803
ground cover, 803
gypsy moth, 1205
Lygus lineolaris, 803
peach orchards, 803
pheromone traps, 1205
measurement,
cockroach control, 1
insecticide baits, 1
integrated pest management, 1
monitoring, 1
public buildings, 1
Medicago sativa,
Empoasca fabae, 437
glandular trichomes, 437
host plant resistance, 437
principal components analysis, 437
pubescence, 437
Mediterranean fruit fly,
Ceratitis capitata, 936
quality control, 936
sterile insect technique, 936
Tephritidae, 936
Megachile,
Apis, 22
lucerne, 22
Nomia, 22
Osmia, 22
pollination efficiency, 22
Melanocallis caryaefoliae,
Aphididae, 782
Homoptera, 782
kaolin, 782
particle film, 782
pecan, 782
Melanotaenia,
insecticides, 294
mosquitoes, 294
nontarget, 294
rainbowfish, 294
toxicity, 294
melezitose,
Aphis gosssypii, 299
honeydew, 299
sticky cotton, 299
thermodetector, 299
threshold, 299
melon thrips,
beans, 1066
host plant resistance, 1066
Phaseolus vulgaris, 1066
Thrips palmi, 1066
Mesoplatys ochroptera,
sampling, 499
Sesbania sesban, 499
spatial distribution, 499
meta-chloroperoxybenzoic acid,
acetylcholinesterase, 425
chlorpyrifos, 425
insecticide resistance, 425
profenofos, 425
sulprofos, 425
Metarhizium anisopliae,
Beauveria bassiana, 675
biological control, 675
entomopathogenic fungi, 675
Lygus lineolaris, 675
pathogenicity, 675
Metarhizium flavoviride,
Beauveria bassiana, 651
beetles, 651
entomopathogenic fungi, 651
Locusta migratoria capito, 651
locusts, 651
method,
egg eclosion, 44
Hemiptera, 44
Macrolophus pygmaeus, 44
oviposition, 44
3-methylcyclohex-2-en-1-one,
Dendroctonus pseudotsugae, 778
Douglas-fir beetle, 778
microbial control,
rearing, 668
Thripinema, 668
western flower thrips, 668
midge,
Chironomidae, 699
Chironomus crassicaudatus, 699
development, 699
life stages, 699
temperature, 699
mirid,
biological control, 1123
Dicyphus tamaninii, 1123
intraguild predation, 1123
Macrolophus caliginosus, 1123
zoophytophagy, 1123
Miridae,
Lygocoris inconspicuous, 354
plant bugs, 354
Taedia scrupeus, 354
vineyard, 354
molecular diagnostic,
insecticide resistance, 838
kdr mutation, 838
para sodium channel gene, 838
pyrethroid, 838
western flower thrips, 838
molecular genetics,
biotype, 448
plant resistance, 448
restriction fragment-length polymorphism, 448
Schizaphis graminum, 448
Sorghum bicolor, 448
monitoring, 1, 96, 507, 748, 1089
alfalfa weevil, 748
Ceratitis capitata, 507
cockroach control, 1
corn rootworm, 96
food attractants, 507
Hypera postica, 748
insecticide baits, 1
integrated pest management, 1, 748, 1089
Lasioderma serricorne, 1089
liquid protein lure, 507
lure, 96
measurement, 1
orange ammonium lure, 507
Plodia interpunctella, 1089
public buildings, 1
sampling, 96
synthetic lure, 507
trap, 96
Tribolium castaneum, 1089
Trogoderma variabile, 1089
mortality, 390, 1281
Clavigralla tomentosicollis, 1281
cowpea, 1281
dekindtiana, 1281
German cockroach, 390
host plant resistance, 1281
insecticide, 390
soap, 390
Vigna unguiculata, 1281
mosquitoes,
insecticides, 294
Melanotaenia, 294
nontarget, 294
rainbowfish, 294
toxicity, 294
mtDNA,
COII gene, 381
Coptotermes formosanus, 381
Formosan subterranean termite, 381

Musca domestica, 1110, 1245, 1251
baits, 1245
boric acid, 1110
control strategies, 1245
cyromazine, 1251
fitness, 1251
genetics, 1251
granular baits, 1110
house fly, 1110
insecticides, 1245
repellency, 1110
resistance, 1245, 1251
Muscidifurax,
biological control, 908
laboratory bioassays, 908
Trichomalopsis, 908
Urolepis, 908
mushrooms,
hemolysin, 603
insecticide, 603
lectin, 603
protein, 603
serpin, 603

N

natural populations,
Drosophila melanogaster, 1229
insecticide resistance, 1229
negative correlation, 1229
productivity, 1229
neem extract,
azadirachtin, 661
citrus, 661
Diaprepes abbreviatus, 661
Neemix, 661
root weevil, 661
Neemix,
azadirachtin, 661
citrus, 661
Diaprepes abbreviatus, 661
neem extract, 661
root weevil, 661
negative correlation,
Drosophila melanogaster, 1229
insecticide resistance, 1229
natural populations, 1229
productivity, 1229
neonate,
Bacillus thuringiensis, 143
host preference, 143
oviposition, 143
Pectinophora gossypiella, 143
resistance management, 143
Neoseiulus fallacis,
Phytoseiidae, 1142
predator–prey interaction, 1142
red raspberry, 1142
spatial association, 1142
Tetranychidae, 1142
nepetalactone,
Blattella germanica, 377
catnip, 377
repellency, 377
Nicotiana,
anabasine, 1294
anatabine, 1294
nicotine, 1294
nornicotine, 1294
tobacco budworm, 1294
nicotine,
anabasine, 1294
anatabine, 1294
Nicotiana, 1294
nornicotine, 1294
tobacco budworm, 1294
Noctuidae,
Bt corn, 622
Lepidoptera, 622
maize, 622
Papaipema nebris, 622
Nomia,
Apis, 22
lucerne, 22
Megachile, 22
Osmia, 22
pollination efficiency, 22
nontarget,
insecticides, 294
Melanotaenia, 294
mosquitoes, 294
rainbowfish, 294
toxicity, 294
nontarget organisms,
lytic peptide, 797
pear psylla, 797
transgenic pear, 797
normal-leaf,
Bemisia argentifolii, 733
Bemisia tabaci biotype B, 733
cotton, 733
host plant resistance, 733
okra-leaf, 733
nornicotine,
anabasine, 1294
anatabine, 1294
Nicotiana, 1294
nicotine, 1294
tobacco budworm, 1294
north-south gradient,
flight initiation, 1195
Scolytidae, 1195
shoot departure, 1195
Tomicus piniperda, 1195
nursery,
Phytoseiidae, 1135
predatory mites, 1135
Tetranychidae, 1135

O

Odontotermes sweathmani,
Amitermes evuncifer, 531
elimination, 531
thiamethoxam, 531
Trinervitermes trinervius, 531
tropical crops pest, 531
odor learning,
Apis mellifera, 227
coumaphos, 227
diazinon, 227
honey bee, 227
organophosphates, 227
Oemona hirta,
body weight, 563
Cerambycidae, 563
fecundity, 563
larval development, 563
rearing, 563
okra-leaf,
Bemisia argentifolii, 733
Bemisia tabaci biotype B, 733
cotton, 733
host plant resistance, 733
normal-leaf, 733
Oligonychus pratensis,
cross-resistance, 399
general esterase, 399
insecticide resistance, 399
resistance mechanism, 399
Tetranychus urticae, 399
optimizing colony production,
carrying capacity, 149
insect colonization, 149
intraspecific competition, 149
Lutzomyia serrana, 149
orange ammonium lure,
Ceratitis capitata, 507
food attractants, 507
liquid protein lure, 507
monitoring, 507
synthetic lure, 507
organophosphates,
Apis mellifera, 227
coumaphos, 227
diazinon, 227
honey bee, 227
odor learning, 227
Oryza sativa,
flooding, 715
Lissorhoptrus oryzophilus, 715
oviposition, 715
rice, 715
rice water weevil, 715
Oryzaephilus surinamensis,
automated monitoring, 1326
grain probe trap, 1326
Sitophilus oryzae, 1326
Tribolium castaneum, 1326
Osmia,
Apis, 22
lucerne, 22

Megachile, 22
Nomia, 22
pollination efficiency, 22
Ostrinia nubilalis, 57, 1033
Bacillus thuringiensis, 57
Bt corn, 57
Diatraea grandiosella, 1033
economic impact, 57
European corn borer, 57, 1033
field corn, 57
resistance management, 1033
simulation modeling, 1033
southwestern corn borer, 1033
Oulema melanopus,
quarantine, 513
rye straw, 513
oviposition, 44, 143, 286, 715, 1333
Bacillus thuringiensis, 143
behavior, 1333
cotton, 286
egg eclosion, 44
flooding, 715
food odors, 1333
Hemiptera, 44
host preference, 143
Lissorhoptrus oryzophilus, 715
Macrolophus pygmaeus, 44
method, 44
neonate, 143
Oryza sativa, 715
packaging, 1333
Pectinophora gossypiella, 143
Pseudoplusia includens, 286
resistance management, 143
rice, 715
rice water weevil, 715
soybean, 286
oviposition inhibition,
carry-over effects, 578
Choristoneura fumiferana, 578
residual effects, 578
sublethal effects, 578
Tebufenozide, 578
oviposition-deterrent,
antifeedant, 183
Curcuma, 183
leaf oil, 183
Rhyzopertha, 183
Sitophilus, 183

P

packaging,
behavior, 1333
food odors, 1333
oviposition, 1333
Pantoea stewartii,
Chaetocnema pulicaria, 739
phytosanitary regulations, 739
plant disease management, 739
Zea mays, 739
Papaipema nebris,
Bt corn, 622
Lepidoptera, 622
maize, 622
Noctuidae, 622
para sodium channel gene,
insecticide resistance, 838
kdr mutation, 838
molecular diagnostic, 838
pyrethroid, 838
western flower thrips, 838
parasitism,
egg parasitoids, 50
Ephestia kuehniella, 50
host-feeding, 50
temperature, 50
Trichogramma turkestanica, 50
Parris White,
plant resistance, 849
Short Guzmaine, 849
Tall Guzmaine, 849
Valmaine, 849
particle film, 754, 782
Anthonomus grandis grandis, 754
Aphididae, 782
boll weevil, 754
cotton, 754
Homoptera, 782
kaolin, 754, 782
Melanocallis caryaefoliae, 782
pecan, 782
particle size,
ant preference, 1222
bait, 1222
head width, 1222
pest ants, 1222
pasture fly management,
dairy, 1113
horn fly, 1113
horn fly management, 1113
integrated pest management, 1113
walk-through fly trap, 1113
pathogen,
biological control, 558
disease, 558
entomopathogen, 558
fire ant, 558
Solenopsis invicta, 558
pathogenicity,
Beauveria bassiana, 675
biological control, 675
entomopathogenic fungi, 675
Lygus lineolaris, 675
Metarhizium anisopliae, 675
peach,
Aphididae, 368
Brachycaudus persicae, 368
imidacloprid, 368
Prunus persicae, 368
peach orchards,
Grapholita molesta, 803
ground cover, 803
Lygus lineolaris, 803
mating disruption, 803
pear psylla,
lytic peptide, 797
nontarget organisms, 797
transgenic pear, 797
pecan,
Aphididae, 782
Homoptera, 782
kaolin, 782
Melanocallis caryaefoliae, 782
particle film, 782
Pectinophora gossypiella, 143, 1018
Bacillus thuringiensis, 143, 1018
host preference, 143
neonate, 143
oviposition, 143
resistance, 1018
resistance management, 143
transgenic plants, 1018
Penthaleus major,
chemical control, 307
hayfields, 307
Iceland, 307
permethrin, 307
winter grain mite, 307
permethrin, 155, 307
Bacillus thuringiensis corn, 155
bivoltine ecotype, 155
chemical control, 307
European corn borer, 155
hayfields, 307
Iceland, 307
Penthaleus major, 307
South Dakota, 155
winter grain mite, 307
yield, 155
permethrin detoxification,
carboxylesterase, 1001
insecticide resistance, 1001
peroxidase,
Anagrapha falcifera nucleopolyhedrovirus, 81
Helicoverpa zea, 81
transgenic plants, 81
pest ants,
ant preference, 1222
bait, 1222
head width, 1222
particle size, 1222
pest control,
fumigation, 1169
postharvest, 1169
quarantine treatment, 1169
pest management, 113, 640, 682
action thresholds, 682
aphids, 113
Bemisia argentifolii, 682

Bemisia tabaci, 682
conservation biological control, 682
grain insects, 640
grain protectant, 640
greenhouse plastic, 113
predators, 682
spinosad, 640
stored wheat, 640
thrips, 113
Trialeurodes vaporariorum, 113
ultraviolet light, 113
pest resistance,
Bacillus thuringiensis, 614
European corn borer, 614
host plant resistance, 614
transgenic plant, 614
pesticide,
Avermectin, 1185
diet bioassay, 1185
foliage bioassay, 1185
photodegradate, 1185
Plutella xylostella, 1185
pesticide use,
beneficial arthropods, 789
integrated pest management, 789
key plant, 789
landscape, 789
spiders, 789
Phaseolus vulgaris,
beans, 1066
host plant resistance, 1066
melon thrips, 1066
Thrips palmi, 1066
phenology,
bivoltinism, 65
Rhagoletis pomonella, 65
trapping, 65
pheromone,
lavandulol, 706
lavandulyl senecioate, 706
Planococcus ficus, 706
sampling, 706
pheromone traps,
Bacillus thuringiensis, 1205
disparlure, 1205
eradication, 1205
gypsy moth, 1205
mating disruption, 1205
phloem translocation,
biotype, 463
Diuraphis noxia, 463
Schizaphis graminum, 463
Triticum aesticum, 463
vein loading, 463
phosphine,
genetics, 862
resistance, 862
Rhyzopertha dominica, 862
photodegradate,
Avermectin, 1185
diet bioassay, 1185
foliage bioassay, 1185
pesticide, 1185
Plutella xylostella, 1185
Phyllocnistis citrella, 250, 966
Cirrospilus vittatus, 250
citrus, 966
damage, 966
leaf area, 966
life history, 250
temperature, 250
yield, 966
phytoplasma vector,
apple proliferation, 544
Cacopsylla melanoneura, 544
population dynamics, 544
phytosanitary regulations,
Chaetocnema pulicaria, 739
Pantoea stewartii, 739
plant disease management, 739
Zea mays, 739
phytosanitary treatment,
commodity treatment, 893
disinfestation, 893
fruit flies, 893
gamma radiation, 893
postharvest, 893
Phytoseiidae, 340, 1135, 1142
biological control, 340
Neoseiulus fallacis, 1142
nursery, 1135
predator–prey interaction, 1142
predatory mites, 1135
red raspberry, 1142
spatial association, 1142
Tetranychidae, 1135, 1142
Tetranychus urticae, 340
Typhlodromus pyri, 340
vineyard, 340
Picea sitchensis,
alkaloids, 608
host plant resistance, 608
leader mortality, 608
Pissodes strobi, 608
Pinus contorta variety *latifolia*,
antibody, 770
Coreidae, 770
Leptoglossus occidentalis, 770
radiography, 770
seed orchard, 770
Pissodes strobi,
alkaloids, 608
host plant resistance, 608
leader mortality, 608
Picea sitchensis, 608
Planococcus ficus,
lavandulol, 706
lavandulyl senecioate, 706
pheromone, 706
sampling, 706
plant bugs, 256, 354
antifungal, 256
artificial diet, 256
Lygocoris inconspicuous, 354
Lygus hesperus, 256
mass rearing, 256
Miridae, 354
Taedia scrupeus, 354
vineyard, 354
plant density,
corn rootworm, 570
Diabrotica, 570
root injury, 570
row spacing, 570
tolerance, 570
plant disease management,
Chaetocnema pulicaria, 739
Pantoea stewartii, 739
phytosanitary regulations, 739
Zea mays, 739
plant resistance, 448, 458, 628, 849, 1049, 1054
aflatoxin, 628, 1049
Aspergillus, 628
biotype, 448
Blissus occiduus, 1054
Buchloë dactyloides, 1054
buffalograss, 1054
chinch bug, 1054
corn, 628, 1049
Helicoverpa zea, 458, 628
molecular genetics, 448
Parris White, 849
restriction fragment-length polymorphism, 448
Schizaphis graminum, 448
selection, 458
Short Guzmaine, 849
Sorghum bicolor, 448
southwestern corn borer, 1049
Tall Guzmaine, 849
turf, 1054
Valmaine, 849
Zea mays, 458
plant volatiles,
electroantennogram, 269
rice hopper, 269
Plathypena scabra,
bioengineered soybeans, 1275
Glycine max, 1275
herbicide, 1275
host suitability, 1275
RoundUp Ready Soybeans, 1275
Plodia interpunctella, 190, 1074, 1089
Amyelois transitella, 190
Cadra figulilella, 190
cold storage, 190
controlled atmosphere, 1074
controlled atmospheres, 190

granulosis virus, 190
integrated pest management, 1089
Lasioderma serricorne, 1089
monitoring, 1089
preserved flowers, 1074
Tribolium castaneum, 1089
Trogoderma variabile, 1089
Plutella xylostella, 14, 430, 1185
Avermectin, 1185
Bacillus thuringiensis, 14
diet bioassay, 1185
foliage bioassay, 1185
inheritance, 430
pesticide, 1185
photodegradate, 1185
resistance, 14, 430
second-generation screen, 14
spinosad, 430
synergism, 430
transgenic, 14
pollination efficiency,
Apis, 22
lucerne, 22
Megachile, 22
Nomia, 22
Osmia, 22
Poncirus trifoliata,
citrus, 1059
Diaprepes abbreviatus, 1059
Diaprepes root weevil, 1059
host plant resistance, 1059
Popillia japonica,
aesthetic injury level, 348
canna lily, 348
chrysanthemum, 348
Frankliniella occidentalis, 348
population dynamics, 544, 1179
apple proliferation, 544
Cacopsylla melanoneura, 544
phytoplasma vector, 544
strawberry, 1179
Trialeurodes vaporariorum, 1179
population estimation,
probe traps, 200
rusty grain beetle, 200
stored grain, 200
stored products, 200
temperature, 200
Populus,
Chrysomela scripta, 313
short-rotation forestry, 313
postharvest, 893, 1169
commodity treatment, 893
disinfestation, 893
fruit flies, 893
fumigation, 1169
gamma radiation, 893
pest control, 1169
phytosanitary treatment, 893
quarantine treatment, 1169
postharvest biology,
commodity, 208
Cydia pomonella, 208
life history, 208
quarantine, 208
predator,
action thresholds, 682
Bemisia argentifolii, 682
Bemisia tabaci, 682
beneficial insect, 1159
conservation biological control, 682
cost efficiency, 1159
fecundity, 1159
intrinsic rate of increase, 1159
pest management, 682
predator–prey interaction,
Neoseiulus fallacis, 1142
Phytoseiidae, 1142
red raspberry, 1142
spatial association, 1142
Tetranychidae, 1142
predatory mites,
nursery, 1135
Phytoseiidae, 1135
Tetranychidae, 1135
preserved flowers,
controlled atmosphere, 1074
Plodia interpunctella, 1074
principal components analysis,
Empoasca fabae, 437
glandular trichomes, 437
host plant resistance, 437
Medicago sativa, 437
pubescence, 437
probe traps,
population estimation, 200
rusty grain beetle, 200
stored grain, 200
stored products, 200
temperature, 200
productivity,
Drosophila melanogaster, 1229
insecticide resistance, 1229
natural populations, 1229
negative correlation, 1229
profenofos,
acetylcholinesterase, 425
chlorpyrifos, 425
insecticide resistance, 425
meta-chloroperoxybenzoic acid, 425
sulprofos, 425
projection pursuit regression,
aphid monitoring, 493
greenhouses, 493
Macrosiphum euphorbiae, 493
sampling, 493
visual methods, 493
Prostephanus truncatus,
biological control, 1079
integrated pest management, 1079
Sitophilus zeamais, 1079
stored products, 1079
Teretrius nigrescens, 1079
protein,
hemolysin, 603
insecticide, 603
lectin, 603
mushrooms, 603
serpin, 603
Prunus persicae,
Aphididae, 368
Brachycaudus persicae, 368
imidacloprid, 368
peach, 368
Pseudacteon,
Argentina, 1151
biological control, 1151
host ant acceptability, 1151
Solenopsis, 1151
Pseudoplusia includens, 278, 286
cotton, 286
crop preference, 278
elemental markers, 278
insect dispersal, 278
oviposition, 286
soybean, 286
Pseudotsuga menziesii,
biomass allocation, 587
Choristoneura occidentalis, 587
herbivory, 587
shoot:root ratio, 587
pubescence,
Empoasca fabae, 437
glandular trichomes, 437
host plant resistance, 437
Medicago sativa, 437
principal components analysis, 437
public buildings,
cockroach control, 1
insecticide baits, 1
integrated pest management, 1
measurement, 1
monitoring, 1
pupation success,
Aethina tumida, 902
Apis mellifera, 902
facultative parasite, 902
reproductive success, 902
sex ratio, 902
pyrethroid,
insecticide resistance, 838
kdr mutation, 838
molecular diagnostic, 838
para sodium channel gene, 838
western flower thrips, 838

pyrethroid resistance,
fitness cost, 1008
Helicoverpa zea, 1008
Heliothis virescens, 1008
mathematical model, 1008
relative fitness estimates, 1008

Q

quality control,
Ceratitis capitata, 936
Mediterranean fruit fly, 936
sterile insect technique, 936
Tephritidae, 936
quarantine, 208, 513
commodity, 208
Cydia pomonella, 208
life history, 208
Oulema melanopus, 513
postharvest biology, 208
rye straw, 513
quarantine pest,
crop loss, 336
Cryptorhynchus mangiferae, 336
fruit drop, 336
Sternochetus mangiferae, 336
quarantine treatment,
fumigation, 1169
pest control, 1169
postharvest, 1169
quinalphos,
cypermethrin, 134
endosulfan, 134
fenvalerate, 134
Helicoverpa armigera, 134
insecticide resistance, 134

R

radiography,
antibody, 770
Coreidae, 770
Leptoglossus occidentalis, 770
Pinus contorta variety *latifolia*, 770
seed orchard, 770
rainbowfish,
insecticides, 294
Melanotaenia, 294
mosquitoes, 294
nontarget, 294
toxicity, 294
rearing, 563, 668, 1337
body weight, 563
Cerambycidae, 563
fecundity, 563
larval development, 563
larval diet, 1337
mass, 1337
microbial control, 668
Oemona hirta, 563
recycled paper, 1337
screwworm, 1337
Thripinema, 668
western flower thrips, 668
recycled paper,
larval diet, 1337
mass, 1337
rearing, 1337
screwworm, 1337
red flour beetle,
corn, 1314
ethiprole, 1314
maize weevil, 1314
rice weevil, 1314
wheat, 1314
red navel,
citrus, 856
Diaprepes abbreviatus, 856
root weevil, 856
trap efficiency, 856
red raspberry,
Neoseiulus fallacis, 1142
Phytoseiidae, 1142
predator–prey interaction, 1142
spatial association, 1142
Tetranychidae, 1142
reduced-risk insecticide,
avaunt, 360
cole crops, 360
Trichoplusia ni, 360
reflective mulch,
corn leafhopper, 325
corn stunt disease, 325
Dalbulus maidis, 325
insect vector, 325
Spiroplasma kunkelii, 325
refugia,
Bt transgenic cotton, 832
Helicoverpa armigera, 832
resistance management, 832
relative fitness estimates,
fitness cost, 1008
Helicoverpa zea, 1008
Heliothis virescens, 1008
mathematical model, 1008
pyrethroid resistance, 1008
repellency, 317, 377, 1110
Bemisia argentifolii, 317
Blattella germanica, 377
boric acid, 1110
catnip, 377
fruiting vegetables, 317
granular baits, 1110
horticultural oil, 317
house fly, 1110
kaolin particle film, 317
Musca domestica, 1110
nepetalactone, 377
whitefly, 317
reproductive success,
Aethina tumida, 902
Apis mellifera, 902
facultative parasite, 902
pupation success, 902
sex ratio, 902
residual effects,
carry-over effects, 578
Choristoneura fumiferana, 578
oviposition inhibition, 578
sublethal effects, 578
Tebufenozide, 578
resistance, 14, 430, 813, 820, 862, 989, 1018, 1245, 1251
acetylcholinesterase, 813
Bacillus thuringiensis, 14, 1018
baits, 1245
benzoylhydrazines, 820
chlorpyrifos, 813
chlorpyrifos-oxon, 813
Choristoneura rosaceana, 820
control strategies, 1245
Coptotermes formosanus, 813, 989
cyromazine, 1251
eserine, 813
fitness, 1251
genetics, 862, 1251
indoxacarb, 820
inheritance, 430
insecticide, 989
insecticides, 820, 1245
Musca domestica, 1245, 1251
Pectinophora gossypiella, 1018
phosphine, 862
Plutella xylostella, 14, 430
Rhyzopertha dominica, 862
second-generation screen, 14
spinosad, 430
synergism, 430
termite, 989
Tortricidae, 820
transgenic, 14
transgenic plants, 1018
resistance management, 143, 832, 1033
Bacillus thuringiensis, 143
Bt transgenic cotton, 832
Diatraea grandiosella, 1033
European corn borer, 1033
Helicoverpa armigera, 832
host preference, 143
neonate, 143
Ostrinia nubilalis, 1033
oviposition, 143
Pectinophora gossypiella, 143
refugia, 832
simulation modeling, 1033
southwestern corn borer, 1033
resistance mechanism,
cross-resistance, 399
general esterase, 399
insecticide resistance, 399
Oligonychus pratensis, 399
Tetranychus urticae, 399

resistance monitoring,
Bt protein, 826
Cry1Ac protein, 826
Helicoverpa armigera, 826
restriction fragment-length polymorphism,
biotype, 448
molecular genetics, 448
plant resistance, 448
Schizaphis graminum, 448
Sorghum bicolor, 448
retention,
citrus pollen, 1174
Helicoverpa zea, 1174
marking, 1174
Reticulitermes flavipes, 121, 981
acoustics, 981
Coptotermes formosanus, 121, 981
foraging behavior, 121
interaction, 121
Reticulitermes virginicus, 981
subterranean termites, 121
wood decay fungi, 121
Reticulitermes virginicus,
acoustics, 981
Coptotermes formosanus, 981
Reticulitermes flavipes, 981
Rhagoletis mendax,
biennial production, 958
blueberry, 958
fruit fly, 958
integrated pest management, 958
Rhagoletis pomonella, 65, 520
apple maggot, 520
bivoltinism, 65
carbon dioxide atmospheres, 520
export, 520
phenology, 65
storage, 520
trapping, 65
Rhyzopertha,
antifeedant, 183
Curcuma, 183
leaf oil, 183
oviposition-deterrent, 183
Sitophilus, 183
Rhyzopertha dominica,
genetics, 862
phosphine, 862
resistance, 862
rice,
flooding, 715
Lissorhoptrus oryzophilus, 715
Oryza sativa, 715
oviposition, 715
rice water weevil, 715
rice hopper,
electroantennogram, 269
plant volatiles, 269
rice water weevil,
flooding, 715
Lissorhoptrus oryzophilus, 715
Oryza sativa, 715
oviposition, 715
rice, 715
rice weevil,
corn, 1314
ethiprole, 1314
maize weevil, 1314
red flour beetle, 1314
wheat, 1314
root injury,
corn rootworm, 570
Diabrotica, 570
plant density, 570
row spacing, 570
tolerance, 570
root weevil, 661, 856
azadirachtin, 661
citrus, 661, 856
Diaprepes abbreviatus, 661, 856
neem extract, 661
Neemix, 661
red navel, 856
trap efficiency, 856
rootworm,
Bacillus thuringiensis, 635
binary crystal protein, 635
Cry34Ab1, 635
Cry35Ab1, 635
RoundUp Ready Soybeans,
bioengineered soybeans, 1275
Glycine max, 1275
herbicide, 1275
host suitability, 1275
Plathypena scabra, 1275
row spacing,
corn rootworm, 570
Diabrotica, 570
plant density, 570
root injury, 570
tolerance, 570
rusty grain beetle,
population estimation, 200
probe traps, 200
stored grain, 200
stored products, 200
temperature, 200
rye straw,
Oulema melanopus, 513
quarantine, 513

S

sampling, 96, 167, 493, 499, 706
Aleyrodidae, 167
aphid monitoring, 493
citrus, 167
corn rootworm, 96
distribution, 167
greenhouses, 493
lavandulol, 706
lavandulyl senecioate, 706
lure, 96
Macrosiphum euphorbiae, 493
Mesoplatys ochroptera, 499
monitoring, 96
pheromone, 706
Planococcus ficus, 706
projection pursuit regression, 493
Sesbania sesban, 499
spatial distribution, 499
trap, 96
visual methods, 493
whiteflies, 167
scarab beetles,
biological control, 918
Exomala orientalis, 918
Heterorhabditis, 918
Steinernema, 918
white grub, 918
Scarabaeidae,
Exomala orientalis, 72
golf course, 72
Japanese chestnut, 72
turfgrass, 72
white grub, 72
Schizaphis graminum, 89, 448, 463
biotype, 448, 463
Diuraphis noxia, 463
economic injury, 89
economic threshold, 89
molecular genetics, 448
phloem translocation, 463
plant resistance, 448
restriction fragment-length polymorphism, 448
Sorghum bicolor, 448
Triticum aestivum, 89, 463
vein loading, 463
Scolytidae,
flight initiation, 1195
north-south gradient, 1195
shoot departure, 1195
Tomicus piniperda, 1195
screwworm,
larval diet, 1337
mass, 1337
rearing, 1337
recycled paper, 1337
seashore paspalum,
bermudagrass, 478
centipedegrass, 478
host plant resistance, 478
turfgrass, 478
twolined spittlebug, 478
second-generation screen,
Bacillus thuringiensis, 14
Plutella xylostella, 14
resistance, 14
transgenic, 14

seed orchard,
antibody, 770
Coreidae, 770
Leptoglossus occidentalis, 770
Pinus contorta variety *latifolia*, 770
radiography, 770
seed protection,
Callosobruchus maculatus, 174
Dinarmus basalis, 174
essential oils, 174
host-parasitoid relationships, 174
terpenes, 174
selection,
Helicoverpa zea, 458
plant resistance, 458
Zea mays, 458
Sentricon,
closed-cell polyethylene, 975
Isoptera, 975
termite baits, 975
sepiapterin,
age, 1319
Anastrepha ludens, 1319
deoxysepiapterin, 1319
fluorescence, 1319
serpin,
hemolysin, 603
insecticide, 603
lectin, 603
mushrooms, 603
protein, 603
Sesamia nonagrioides, 1044, 1289
antibiotic pith, 1044
chemical stimuli, 1289
corn hybrids, 1289
host selection, 1289
stem resistance, 1044
Zea mays, 1044
Sesbania sesban,
Mesoplatys ochroptera, 499
sampling, 499
spatial distribution, 499
sex pheromone,
Desmia funeralis, 692
(Z,Z)-11,13-hexadecadienal, 692
(Z)-11-hexadecenal, 692
11-hexadecynal, 692
sex ratio,
Aethina tumida, 902
Apis mellifera, 902
facultative parasite, 902
pupation success, 902
reproductive success, 902
shoot departure,
flight initiation, 1195
north-south gradient, 1195
Scolytidae, 1195
Tomicus piniperda, 1195
shoot:root ratio,
biomass allocation, 587
Choristoneura occidentalis, 587
herbivory, 587
Pseudotsuga menziesii, 587
Short Guzmaine,
Parris White, 849
plant resistance, 849
Tall Guzmaine, 849
Valmaine, 849
short-rotation forestry,
Chrysomela scripta, 313
Populus, 313
silverleaf whitefly,
integrated pest management, 372
Lycopersicon esculentum, 372
simulation modeling,
Diatraea grandiosella, 1033
European corn borer, 1033
Ostrinia nubilalis, 1033
resistance management, 1033
southwestern corn borer, 1033
Sitophilus,
antifeedant, 183
Curcuma, 183
leaf oil, 183
oviposition-deterrent, 183
Rhyzopertha, 183
Sitophilus oryzae,
automated monitoring, 1326
grain probe trap, 1326
Oryzaephilus surinamensis, 1326
Tribolium castaneum, 1326
Sitophilus zeamais,
biological control, 1079
integrated pest management, 1079
Prostephanus truncatus, 1079
stored products, 1079
Teretrius nigrescens, 1079
small hive beetle,
American foulbrood, 1119
honey bee, 1119
tylosin, 1119
snowdrop lectin,
Diatraea saccharalis, 469
Eoreuma loftini, 469
Galanthus nivalis agglutinin, 469
life history parameters, 469
soap,
German cockroach, 390
insecticide, 390
mortality, 390
sod production,
endophyte, 487
forage, 487
host plant resistance, 487
Spodoptera frugiperda, 487
turfgrass, 487
Solenopsis,
Argentina, 1151
biological control, 1151
host ant acceptability, 1151
Pseudacteon, 1151
Solenopsis invicta,
biological control, 558
disease, 558
entomopathogen, 558
fire ant, 558
pathogen, 558
Sorghum bicolor,
biotype, 448
molecular genetics, 448
plant resistance, 448
restriction fragment-length polymorphism, 448
Schizaphis graminum, 448
South Dakota,
Bacillus thuringiensis corn, 155
bivoltine ecotype, 155
European corn borer, 155
permethrin, 155
yield, 155
southwestern corn borer, 1033, 1049
aflatoxin, 1049
corn, 1049
Diatraea grandiosella, 1033
European corn borer, 1033
Ostrinia nubilalis, 1033
plant resistance, 1049
resistance management, 1033
simulation modeling, 1033
soybean, 286, 945, 1190
cotton, 286
defoliation, 945
double-crop, 945
full-season, 945
Glycine max, 945
herbivory, 1190
leaf area, 1190
leaf area index, 945
oviposition, 286
Pseudoplusia includens, 286
video image analysis, 1190
spatial association,
Neoseiulus fallacis, 1142
Phytoseiidae, 1142
predator–prey interaction, 1142
red raspberry, 1142
Tetranychidae, 1142
spatial distribution,
Mesoplatys ochroptera, 499
sampling, 499
Sesbania sesban, 499
spiders,
beneficial arthropods, 789
integrated pest management, 789
key plant, 789

landscape, 789
pesticide use, 789
spinosad, 331, 430, 640
bioassay, 331
chlorfenapyr, 331
Epitrix fuscula, 331
grain insects, 640
grain protectant, 640
inheritance, 430
pest management, 640
Plutella xylostella, 430
resistance, 430
stored wheat, 640
synergism, 430
thiamethoxam, 331
spinosad residues,
efficacy assessment, 1102
stored wheat, 1102
stored-grain insects, 1102
Spiroplasma kunkelii,
corn leafhopper, 325
corn stunt disease, 325
Dalbulus maidis, 325
insect vector, 325
reflective mulch, 325
Spodoptera exigua, 243, 261
Helicoverpa zea, 243, 261
ultraviolet light, 261
ultraviolet radiation, 243
viruses, 243
visible light, 261
Spodoptera frugiperda,
endophyte, 487
forage, 487
host plant resistance, 487
sod production, 487
turfgrass, 487
squash bug,
Citrullus lanatus, 595
Cucurbitaceae, 595
Hemiptera, 595
Steinernema,
biological control, 918
Exomala orientalis, 918
Heterorhabditis, 918
scarab beetles, 918
white grub, 918
stem resistance,
antibiotic pith, 1044
Sesamia nonagrioides, 1044
Zea mays, 1044
sterile insect technique,
Ceratitis capitata, 936
Mediterranean fruit fly, 936
quality control, 936
Tephritidae, 936
Sternochetus mangiferae,
crop loss, 336
Cryptorhynchus mangiferae, 336
fruit drop, 336
quarantine pest, 336
sticky cotton,
Aphis gossypii, 299
honeydew, 299
melezitose, 299
thermodetector, 299
threshold, 299
storage,
apple maggot, 520
carbon dioxide atmospheres, 520
export, 520
Rhagoletis pomonella, 520
stored grain,
population estimation, 200
probe traps, 200
rusty grain beetle, 200
stored products, 200
temperature, 200
stored products, 200, 1079
biological control, 1079
integrated pest management, 1079
population estimation, 200
probe traps, 200
Prostephanus truncatus, 1079
rusty grain beetle, 200
Sitophilus zeamais, 1079
stored grain, 200
temperature, 200
Teretrius nigrescens, 1079
stored wheat, 640, 1102
efficacy assessment, 1102
grain insects, 640
grain protectant, 640
pest management, 640
spinosad, 640
spinosad residues, 1102
stored-grain insects, 1102
stored-grain insects,
efficacy assessment, 1102
spinosad residues, 1102
stored wheat, 1102
Stratiomyidae,
Diptera, 598
Hermetia illucens, 598
strawberry,
population dynamics, 1179
Trialeurodes vaporariorum, 1179
sublethal effects,
carry-over effects, 578
Choristoneura fumiferana, 578
oviposition inhibition, 578
residual effects, 578
Tebufenozide, 578
subterranean termites,
Coptotermes formosanus, 121
foraging behavior, 121
interaction, 121
Reticulitermes flavipes, 121
wood decay fungi, 121
sulprofos,
acetylcholinesterase, 425
chlorpyrifos, 425
insecticide resistance, 425
meta-chloroperoxybenzoic acid, 425
profenofos, 425
survey,
biotechnology, 878
Bt corn, 878
European corn borer, 878
maize, 878
transgenic corn, 878
synergism,
inheritance, 430
Plutella xylostella, 430
resistance, 430
spinosad, 430
synthetic lure,
Ceratitis capitata, 507
food attractants, 507
liquid protein lure, 507
monitoring, 507
orange ammonium lure, 507

T

Taedia scrupeus,
Lygocoris inconspicuous, 354
Miridae, 354
plant bugs, 354
vineyard, 354
Tall Guzmaine,
Parris White, 849
plant resistance, 849
Short Guzmaine, 849
Valmaine, 849
Tebufenozide,
carry-over effects, 578
Choristoneura fumiferana, 578
oviposition inhibition, 578
residual effects, 578
sublethal effects, 578
temperature, 50, 200, 250, 699
Chironomidae, 699
Chironomus crassicaudatus, 699
Cirrospilus vittatus, 250
development, 699
egg parasitoids, 50
Ephestia kuehniella, 50
host-feeding, 50
life history, 250
life stages, 699
midge, 699
parasitism, 50
Phyllocnistis citrella, 250
population estimation, 200
probe traps, 200
rusty grain beetle, 200
stored grain, 200
stored products, 200
Trichogramma turkestanica, 50

Tenebrio molitor,
alternative protein sources, 214
broiler feed, 214
Tephritidae,
Ceratitis capitata, 936
Mediterranean fruit fly, 936
quality control, 936
sterile insect technique, 936
Teretrius nigrescens,
biological control, 1079
integrated pest management, 1079
Prostephanus truncatus, 1079
Sitophilus zeamais, 1079
stored products, 1079
termite,
Coptotermes formosanus, 989
insecticide, 989
resistance, 989
termite baits,
closed-cell polyethylene, 975
Isoptera, 975
Sentricon, 975
terpenes,
Callosobruchus maculatus, 174
Dinarmus basalis, 174
essential oils, 174
host-parasitoid relationships, 174
seed protection, 174
Tetranychidae, 1135, 1142
Neoseiulus fallacis, 1142
nursery, 1135
Phytoseiidae, 1135, 1142
predator-prey interaction, 1142
predatory mites, 1135
red raspberry, 1142
spatial association, 1142
Tetranychus urticae, 340, 399, 729, 952, 1267
acaricide, 1267
allozyme, 1267
biological control, 340
cross-resistance, 399, 1267
cucumber, 952
Cucumis sativus, 952
fecundity, 729
general esterase, 399
hormoligosis, 729
imidacloprid, 729
insecticide resistance, 399
leaf-cell -tissue damage, 952
linkage, 1267
Oligonychus pratensis, 399
Phytoseiidae, 340
resistance mechanism, 399
twospotted spider mite, 729, 952
Typhlodromus pyri, 340
vineyard, 340
thermodetector,
Aphis gossypii, 299
honeydew, 299
melezitose, 299
sticky cotton, 299
threshold, 299
thiamethoxam, 331, 531
Amitermes evuncifer, 531
bioassay, 331
chlorfenapyr, 331
elimination, 531
Epitrix fuscula, 331
Odontotermes smeathmani, 531
spinosad, 331
Trinervitermes trinervius, 531
tropical crops pest, 531
threshold,
Aphis gossypii, 299
honeydew, 299
melezitose, 299
sticky cotton, 299
thermodetector, 299
Thripidae,
cultural management, 1216
Frankliniella occidentalis, 1216
tomato spotted wilt, 1216
Thripinema,
microbial control, 668
rearing, 668
western flower thrips, 668
thrips,
aphids, 113
greenhouse plastic, 113
pest management, 113
Trialeurodes vaporariorum, 113
ultraviolet light, 113
Thrips palmi,
beans, 1066
host plant resistance, 1066
melon thrips, 1066
Phaseolus vulgaris, 1066
thymol,
Acarapis woodi, 221
botanical oil, 221
honey bee, 221
Varroa destructor, 221
tillage,
Bracon cephi, 1130
Bracon lissogaster, 1130
Cephus cinctus, 1130
chemical fallow, 1130
Wheat stem sawfly, 1130
tobacco budworm,
anabasine, 1294
anatabine, 1294
Nicotiana, 1294
nicotine, 1294
nornicotine, 1294
tolerance,
corn rootworm, 570
Diabrotica, 570
plant density, 570
root injury, 570
row spacing, 570
tomato spotted wilt,
cultural management, 1216
Frankliniella occidentalis, 1216
Thripidae, 1216
Tomicus piniperda,
flight initiation, 1195
north-south gradient, 1195
Scolytidae, 1195
shoot departure, 1195
Tortricidae,
benzoylhydrazines, 820
Choristoneura rosaceana, 820
indoxacarb, 820
insecticides, 820
resistance, 820
toxicity,
insecticides, 294
Melanotaenia, 294
mosquitoes, 294
nontarget, 294
rainbowfish, 294
transgenic, 14, 763
Bacillus thuringiensis, 14
Bacillus thuringiensis cotton, 763
behavior, 763
bollworm, 763
Helicoverpa zea, 763
Plutella xylostella, 14
resistance, 14
second-generation screen, 14
transgenic corn,
biotechnology, 878
Bt corn, 878
European corn borer, 878
maize, 878
survey, 878
transgenic pear,
lytic peptide, 797
nontarget organisms, 797
pear psylla, 797
transgenic plant,
Anagrapha falcifera nucleopolyhedrovirus, 81
Bacillus thuringiensis, 614, 1018
European corn borer, 614
Helicoverpa zea, 81
host plant resistance, 614
Pectinophora gossypiella, 1018
peroxidase, 81
pest resistance, 614
resistance, 1018
trap,
corn rootworm, 96
lure, 96
monitoring, 96
sampling, 96

trap efficiency,
citrus, 856
Diaprepes abbreviatus, 856
red navel, 856
root weevil, 856
trapping,
bivoltinism, 65
phenology, 65
Rhagoletis pomonella, 65
Trialeurodes vaporariorum, 113, 1179
aphids, 113
greenhouse plastic, 113
pest management, 113
population dynamics, 1179
strawberry, 1179
thrips, 113
ultraviolet light, 113
Tribolium castaneum,
automated monitoring, 1326
grain probe trap, 1326
integrated pest management, 1089
Lasioderma serricorne, 1089
monitoring, 1089
Oryzaephilus surinamensis, 1326
Plodia interpunctella, 1089
Sitophilus oryzae, 1326
Trogoderma variabile, 1089
Trichogramma,
fecundity, 912
field success, 912
mass rearing, 912
Trichogramma turkestanica,
egg parasitoids, 50
Ephestia kuehniella, 50
host-feeding, 50
parasitism, 50
temperature, 50
Trichomalopsis,
biological control, 908
laboratory bioassays, 908
Muscidifurax, 908
Urolepis, 908
Trichoplusia ni,
avaunt, 360
cole crops, 360
reduced-risk insecticide, 360
Trinervitermes trinervius,
Amitermes evuncifer, 531
elimination, 531
Odontotermes smeathmani, *531*
thiamethoxam, 531
tropical crops pest, 531
Triticum aestivum, 89, 463
biotype, 463
Diuraphis noxia, 463
economic injury, 89
economic threshold, 89
phloem translocation, 463
Schizaphis graminum, 89, 463
vein loading, 463
tritrophic interactions,
Acyrthosiphon kondoi, 552
Coccinellidae, 552
host plant resistance, 552
Trogoderma variabile,
integrated pest management, 1089
Lasioderma serricorne, 1089
monitoring, 1089
Plodia interpunctella, 1089
Tribolium castaneum, 1089
tropical crops pest,
Amitermes evuncifer, 531
elimination, 531
Odontotermes smeathmani, *531*
thiamethoxam, 531
Trinervitermes trinervius, 531
turf,
Blissus occiduus, 1054
Buchloë dactyloides, 1054
buffalograss, 1054
chinch bug, 1054
plant resistance, 1054
turfgrass, 72, 478, 487, 722
bermudagrass, 478
Bombus impatiens, 722
bumble bee, 722
centipedegrass, 478
cyfluthrin, 722
ecotoxicology, 722
endophyte, 487
Exomala orientalis, 72
forage, 487
golf course, 72
host plant resistance, 478, 487
imidacloprid, 722
Japanese chestnut, 72
Scarabaeidae, 72
seashore paspalum, 478
sod production, 487
Spodoptera frugiperda, 487
twolined spittlebug, 478
white grub, 72
twolined spittlebug,
bermudagrass, 478
centipedegrass, 478
host plant resistance, 478
seashore paspalum, 478
turfgrass, 478
twospotted spider mite, 729, 952
cucumber, 952
Cucumis sativus, 952
fecundity, 729
hormoligosis, 729
imidacloprid, 729
leaf-cell -tissue damage, 952
Tetranychus urticae, 729, 952
tylosin,
American foulbrood, 1119
honey bee, 1119
small hive beetle, 1119
Typhlodromus pyri,
biological control, 340
Phytoseiidae, 340
Tetranychus urticae, 340
vineyard, 340

U

ultraviolet light, 113, 261
aphids, 113
greenhouse plastic, 113
Helicoverpa zea, 261
pest management, 113
Spodoptera exigua, 261
thrips, 113
Trialeurodes vaporariorum, 113
visible light, 261
ultraviolet radiation,
Helicoverpa zea, 243
Spodoptera exigua, 243
viruses, 243
Urolepis,
biological control, 908
laboratory bioassays, 908
Muscidifurax, 908
Trichomalopsis, 908

V

Vaccinium macrocarpon,
Acrobasis vaccinii, 1308
head capsule widths, 1308
instars, 1308
Valmaine,
Parris White, 849
plant resistance, 849
Short Guzmaine, 849
Tall Guzmaine, 849
Varroa destructor, 28, 221
Acarapis woodi, 221
Apis mellifera, 28
botanical oil, 221
coumaphos, 28
fluvalinate, 28
honey bee, 28, 221
thymol, 221
varroa mite, 28
varroa mite,
Apis mellifera, 28
coumaphos, 28
fluvalinate, 28
honey bee, 28
Varroa destructor, 28
vein loading,
biotype, 463
Diuraphis noxia, 463
phloem translocation, 463
Schizaphis graminum, 463
Triticum aestivum, 463
video image analysis,
herbivory, 1190
leaf area, 1190
soybean, 1190

Vigna unguiculata,
Clavigralla tomentosicollis, 1281
cowpea, 1281
dekindtiana, 1281
host plant resistance, 1281
mortality, 1281
vineyard, 340, 354
biological control, 340
Lygocoris inconspicuous, 354
Miridae, 354
Phytoseiidae, 340
plant bugs, 354
Taedia scrupeus, 354
Tetranychus urticae, 340
Typhlodromus pyri, 340
viral activity,
enhancement, 237
inhibitors, 237
Lymantria dispar, 237
virulence,
Anastrepha ludens, 36
Beauveria bassiana, 36
bioassays, 36
entomopathogen, 36
fruit flies, 36
viruses,
Helicoverpa zea, 243
Spodoptera exigua, 243
ultraviolet radiation, 243
visible light,
Helicoverpa zea, 261
Spodoptera exigua, 261
ultraviolet light, 261
visual methods,
aphid monitoring, 493
greenhouses, 493
Macrosiphum euphorbiae, 493
projection pursuit regression, 493
sampling, 493

W

walk-through fly trap,
dairy, 1113
horn fly, 1113
horn fly management, 1113
integrated pest management, 1113
pasture fly management, 1113
western flower thrips, 668, 838
insecticide resistance, 838
kdr mutation, 838
microbial control, 668
molecular diagnostic, 838
para sodium channel gene, 838
pyrethroid, 838
rearing, 668
Thripinema, 668
wheat,
corn, 1314
ethiprole, 1314
maize weevil, 1314
red flour beetle, 1314
rice weevil, 1314
Wheat stem sawfly,
Bracon cephi, 1130
Bracon lissogaster, 1130
Cephus cinctus, 1130
chemical fallow, 1130
tillage, 1130
white grub, 72, 918
biological control, 918
Exomala orientalis, 72, 918
golf course, 72
Heterorhabditis, 918
Japanese chestnut, 72
scarab beetles, 918
Scarabaeidae, 72
Steinernema, 918
turfgrass, 72
whitefly,
Aleyrodidae, 167
Bemisia argentifolii, 317
citrus, 167
distribution, 167
fruiting vegetables, 317
horticultural oil, 317
kaolin particle film, 317
repellency, 317
sampling, 167
winter grain mite,
chemical control, 307
hayfields, 307
Iceland, 307
Penthaleus major, 307
permethrin, 307
wood decay fungi,
Coptotermes formosanus, 121
foraging behavior, 121
interaction, 121
Reticulitermes flavipes, 121
subterranean termites, 121

X

Xylotrechus quadripes,
Acalolepta cervina, 106
Bacchisa pallidiventris, 106
Coffea arabica, 106

Y

yield, 155, 966
Bacillus thuringiensis corn, 155
bivoltine ecotype, 155
citrus, 966
damage, 966
European corn borer, 155
leaf area, 966
permethrin, 155
Phyllocnistis citrella, 966
South Dakota, 155

Z

Zea mays, 458, 739, 1044, 1303
antibiotic pith, 1044
Chaetocnema pulicaria, 739
Helicoverpa armigera, 1303
Helicoverpa zea, 458, 1303
host plant resistance, 1303
husk tightness, 1303
husk wrap, 1303
Pantoea stewartii, 739
phytosanitary regulations, 739
plant disease management, 739
plant resistance, 458
selection, 458
Sesamia nonagrioides, 1044
stem resistance, 1044
zoophytophagy,
biological control, 1123
Dicyphus tamaninii, 1123
intraguild predation, 1123
Macrolophus caliginosus, 1123
mirid, 1123